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CODY

Resource Management Plan
Final Environmental Impact Statement

PROPOSED
RESOURCE MANAGEMENT PLAN
AND
FINAL ENVIRONMENTAL IMPACT STATEMENT
for the
CODY RESOURCE AREA

Worland District, Wyoming

Lead Agency: U.S. Department of the Interior, Bureau of Land Management

Type of Action: Administrative

Jurisdiction: Portions of Big Horn and Park counties, Wyoming

Abstract: This document addresses alternatives for managing almost 1.1 million acres of federal land and about 1.5 million acres of federal mineral estate administered by the Cody Resource Area, Worland District, Bureau of Land Management (see map 1). The plan focuses on three resource management issues relating to vegetative resources, special management area designations, and resource accessibility and manageability.

This proposed RMP/final EIS incorporates by reference most of the material presented in the *Draft Resource Management Plan/Environmental Impact Statement for the Cody Resource Area*. Four alternatives that address each issue were considered in detail in the draft RMP/EIS: continuation of present management (Alternative A) and three other alternatives that provide a variety of choices ranging from restricting management actions or development to actively mitigating the effects of resource management actions or development. The proposed action presented in this document is a refinement of Alternative D, the preferred alternative in the draft document. The changes from the draft RMP/EIS are described herein, as are the environmental consequences of the proposed plan. Comments on the draft document that were received from the public are reproduced in this document, along with responses from the Bureau of Land Management.

When the final version of the resource management plan is approved, the plan will provide a comprehensive framework for managing and allocating resources on the public land in the Cody Resource Area. Further information regarding this document can be obtained from the address below.

Thomas E. Enright, Area Manager
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, Wyoming 82414
Telephone: (307) 587-2216

United States Department of the Interior

TAKE PRIDE IN AMERICA

BUREAU OF LAND MANAGEMENT
WYOMING STATE OFFICE
P.O. BOX 1828
CHEYENNE, WYOMING 82003

September 1988

Dear Reader:

Enclosed for your review and future reference is the *Proposed Resource Management Plan/Final Environmental Impact Statement for the Cody Resource Area.* It presents the proposed resource management plan (RMP), which is a refinement of the preferred alternative presented in the draft RMP/EIS for the Cody Resource Area, which was released in April 1988. In addition, it fulfills the requirements for preparation of a final environmental impact statement (EIS).

The environmental consequences of the proposed plan are discussed in this document, as are changes from the draft RMP/EIS. Comments received from the public and the Bureau of Land Management's responses to those comments also are included.

The draft Cody RMP/EIS is an integral part of the planning process. It will be required as a reference to accompany this final document. Copies of the draft are available from either the Cody Resource Area BLM, P.O. Box 518, Cody, WY 82414; or the Worland District BLM, P.O. Box 119, Worland, WY 82401.

All parts of the proposed RMP may be protested. Protests should be sent within 30 days after publication of a notice in the Federal Register that the Environmental Protection Agency has received the proposed RMP/final EIS.

Protests related to any part of the document should be sent to the Director (760), Bureau of Land Management, 1800 C Street NW, Washington, D.C. 20240. They should include (a) the name, mailing address, telephone number, and interest of the person filing the protest; (b) a statement of the issue or issues being protested; (c) a statement of the part or parts of the plan being protested; (d) a copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party, or an indication of the date the issue or issues were discussed for the record; (e) a concise statement explaining why the proposed management plan is believed to be wrong.

The proposed management plan will become final upon approval of a record of decision following the 30-day protest period. If any significant change is made to the proposed RMP as a result of a protest, the changed portion will be made available for public review and comment before final approval and implementation of the plan.

I want to personally thank those who have contributed to and participated in the development of this plan. I hope your involvement will continue as we move forward to implement and monitor the plan and manage the public lands and resources in the Cody Resource Area.

Sincerely,

Hillary A. Oden

Hillary A. Oden
State Director

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PROPOSED RESOURCE MANAGEMENT PLAN/ FINAL ENVIRONMENTAL IMPACT STATEMENT
for the
CODY RESOURCE AREA
WORLAND DISTRICT, WYOMING

Prepared by:
U.S. Department of the Interior
Bureau of Land Management
Worland, Wyoming
1988

Hillary A. Oden
Wyoming State Director

8/12/88
Date

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ABBREVIATIONS

[Note: Many of these terms are further defined in the draft RMP/EIS Glossary.]

ACEC	Area of critical environmental concern
APD	Application for Permit to Drill
APHIS	Animal and Plant Health Inspection Service, (USDA)
AMP	Allotment management plan
AUM	Animal unit month
BLM	Bureau of Land Management, U. S. Department of the Interior
BMP	Best management practices
BOR	Bureau of Reclamation, U. S. Department of the Interior
BP	Before present
”C” allotment	See appendix G
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations. Numbers refer to title and part; that is, 40 CFR 1500 refers to title 40, part 1500
C&MU Act	Classification and Multiple Use Act of 1964
CRMP	Cultural resources management plan
DEQ	Department of Environmental Quality, Wyoming
EA	Environmental assessment
EIS	Environmental impact statement
EPA	U. S. Environmental Protection Agency
ERMA	Extensive recreation management area
FLPMA	Federal Land Policy and Management Act of 1976
FMP	Forest management plan
FS	Forest Service, U. S. Department of Agriculture
GS	Geological Survey, U. S. Department of the Interior
HMP	Habitat Management Plan
“I” allotment	See appendix G
“M” allotment	See appendix G
MBF	Thousand board feet
MCF	Thousand cubic feet
MFP	Management framework plan
mg/l	Milligrams per liter
MLRA	Major land resource area
MMBF	Millon board feet
MOU	Memorandum of understanding
NEPA	National Environmental Policy Act of 1969
NPDES	National Pollution Discharge Elimination System
NPS	National Park Service, U. S. Department of the Interior
NWSRS	National Wild and Scenic River System
NRA	National Recreation Area

ABBREVIATIONS

NSO	"No surface occupancy" provision
ORV	Off-road vehicle
PSIAC	Pacific Southwest Inter-Agency Committee
R&PP	Recreation and public purposes
RAMP	Recreation area management plan
RMP	Resource management plan
RNA	Research natural area
RVD	Recreation visitor day
SCS	Soil Conservation Service, U. S. Department of Agriculture
SDR	Sediment delivery ratio
SRMA	Special recreation management area
TSP	Total suspended particulates
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USFWS	Fish and Wildlife Service, U. S. Department of the Interior
VRM	Visual resource management
WGFD	Wyoming Game and Fish Department
WSA	Wilderness study area

SUMMARY

INTRODUCTION

This proposed resource management plan/final environmental impact statement addresses options for the future management of federal land and federal mineral estate administered by the Cody Resource Area, Bureau of Land Management (BLM). The area covered comprises approximately 1,081,000 acres of public land surface and 1,508,000 acres of federal mineral estate.

The Cody Resource Area encompasses parts of Big Horn and Park counties in north central Wyoming (see map 1).

PUBLIC INVOLVEMENT

The draft resource management plan/environmental impact statement (RMP/EIS) for the Cody Resource Area was released in April 1988. The public was invited to comment on the draft through a notice in the *Federal Register*, notices in local news media, and letters to those on the mailing list. A public meeting was held in May, and small group meetings were also held.

A total of 101 written comments were received on the draft EIS. These comments and the BLM's responses are included in chapter 5 of this document.

CONTENT OF THIS DOCUMENT

This document is not a complete reprinting of the draft RMP/EIS; rather, it focuses on the proposed plan, which is a refinement of the preferred alternative (Alternative D) in the draft RMP/EIS. The environmental consequences of the proposed RMP are discussed, as are changes from the draft RMP/EIS. Public comments on the draft are included, along with the BLM's responses to those comments.

The draft RMP/EIS will be required as a reference to accompany the proposed RMP/final EIS. The arrangement of reprinted or updated portions of the proposed RMP/final EIS parallels the format of the draft RMP/EIS.

All maps necessary to understanding of the proposed plan are included in this document. Some are new, some have been revised from maps used in the draft document, and some are reproduced unchanged.

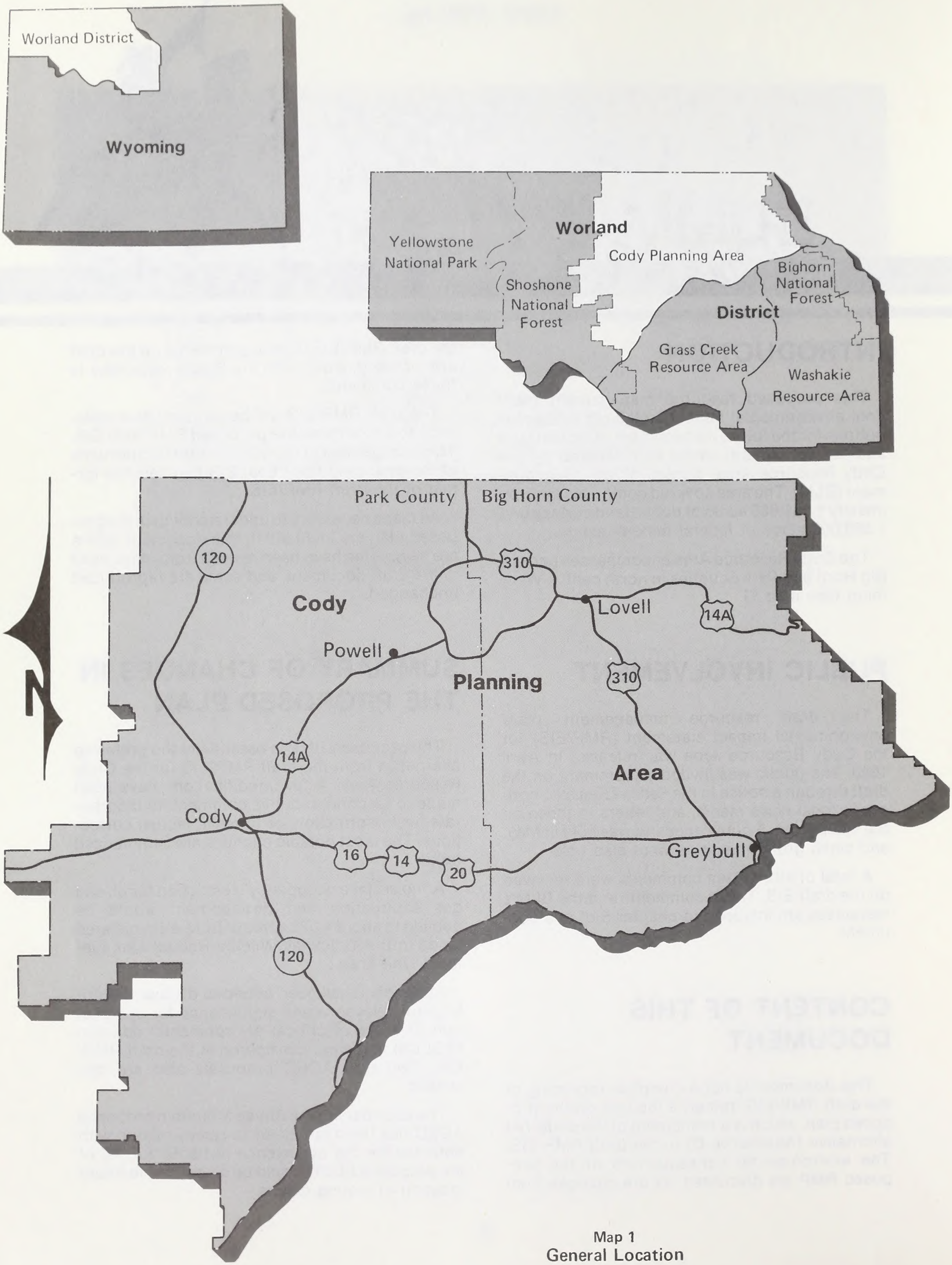
SUMMARY OF CHANGES IN THE PROPOSED PLAN

The proposed RMP is essentially the preferred alternative from the draft RMP/EIS for the Cody Resource Area. A few modifications have been made to respond to public comment, to incorporate new information, or to make factual corrections. The most notable changes are summarized below.

A "no surface occupancy" restriction for oil and gas exploration and development would be applied to about 4,070 acres of BLM-administered lands in the Yellowtail Wildlife Habitat Management Unit area.

Appendix J has been added to discuss the criteria for relevance and significance for designation of areas of critical environmental concern (ACECs) that were considered in the draft RMP/EIS. Two new ACEC proposals also are discussed.

The boundary of the Sheep Mountain proposed ACEC has been amended to remove lands with potential for the occurrence of bentonite. All of the proposed ACEC would be closed to the future location of mining claims.



Map 1
General Location

Closures to operation of the general mining laws would remain in effect on additional lands classified under the Classification and Multiple Use Act of 1964 (C&MU). Mineral closures would continue on about 3,560 acres in the Little Mountain proposed ACEC. These closures would protect significant caves (about 283 acres) and an area along Porcupine Creek (about 3,277 acres) which may be eligible for inclusion in the National Wild and Scenic Rivers System.

Appendix K, Oil and Gas Operations, has been added to explain the possible sequence of oil and gas exploration and development activities and to describe the standard procedures governing geophysical exploration and oil and gas leasing, exploration, development, and abandonment.

Limitations on geophysical exploration have been modified to allow casual use on lands subject to "no surface occupancy" restrictions.

A new special recreation management area (SRMA) has been added. The Rivers SRMA would include the Clarks Fork of the Yellowstone River, the North Fork and South Fork of the Shoshone River, and other fishing areas such as Newton Lakes.

Porcupine Creek in Devil Canyon has been determined eligible for further study and potential classification as a scenic river.

1 PURPOSE OF AND NEED FOR ACTION

INTRODUCTION

The *Proposed Resource Management Plan/Final Environmental Impact Statement for the Cody Resource Area* presents the proposed resource management plan (RMP) for the Cody Resource Area. The *Draft Resource Management Plan/ Environmental Impact Statement for the Cody Resource Area* was published in April 1988.

This document is not a complete rewrite of the draft version. It contains information on changes in proposals of the draft, corrections of any erroneous material, and in some cases more recent data. The environmental consequences of the proposed plan are described in chapter 4.

Any additional works cited in this final document are listed in the Additional References section herein. A Glossary Supplement also is included. However, readers may wish to refer to the Glossary and References in the draft document. All maps necessary to an understanding of the proposed plan are included in this document. Some are new, some have been revised from maps used in the draft document, and some are reproduced unchanged.

PURPOSE AND NEED

When the final version of the RMP is approved, the plan will provide a comprehensive framework for management of the public land in the Cody Resource Area by the Bureau of Land Management (BLM). In addition, this document fulfills requirements for preparation of a final environmental impact statement (EIS).

As required by the Federal Land Policy and Management Act of 1976 (FLPMA) and the National Environmental Policy Act (NEPA), a range of alternatives was considered in the draft document. The proposed plan presented here is a refinement of the preferred alternative described in that document.

After completion, the Cody RMP will be kept current through maintenance, amendments, or revisions, as demands on public lands and resources change, as the land and resource conditions change, or as new information is acquired.

ADDITIONS AND CORRECTIONS

Changes to chapter 1 of the draft RMP/EIS are shown in the following list.

ADDITIONS AND CORRECTIONS FOR TABLE OF CONTENTS AND CHAPTER 1

Page numbers refer to pages in the draft RMP/EIS. A partial paragraph at the top of a column counts as paragraph 1. The changed or added material in the "Should Read" column is in bold type.

Draft Page	Column	Paragraph	Line(s)	Should Read
x	heading			"Maps (Continued)" should be **Tables (Continued)**
2	1	1	End paragraph	**About 6,340 acres in Big Horn County, Wyoming are administered by the Billings Resource Area as part of the Pryor Mountain Wild Horse Range.**
4	1	13	2	"5Protection" should be **Protection**
4	1	13	2	Begin a new paragraph: **Protection of caves . . .**
4	2	8	1	Do the alternatives **allow for protection of surface and groundwater resources and** meet guidelines . . .
6	2	3	9	. . . management actions in **table 4** . . .

2 ALTERNATIVES

INTRODUCTION

The proposed RMP for the Cody Resource Area is described in this chapter. The proposed plan is essentially Alternative D, the preferred alternative, from the draft RMP/EIS document. A few modifications were made to respond to public comments, to incorporate new information, and to make factual corrections. The most notable changes are summarized in the next section; following that, the entire proposed plan is described.

CHANGES TO THE PREFERRED ALTERNATIVE

Restrictions on Surface-Disturbing Activities

A "no surface occupancy" restriction for leasable minerals exploration and development would be applied to about 4,070 acres of BLM-administered lands in the Yellowtail Wildlife Habitat Management Unit. Other surface-disturbing activities generally would be prohibited in the unit. The area would be closed to future locatable minerals exploration and development, subject to valid existing rights.

Areas of Critical Environmental Concern

Appendix J has been added to this document. In that appendix, the criteria for relevance and significance for designation of an area of critical environmental concern (ACEC) are described, and the five proposed ACECs considered in the draft RMP/EIS are discussed. Two additional ACEC proposals also are discussed.

The boundary of the Sheep Mountain proposed ACEC has been amended to remove lands with potential for the occurrence of bentonite. BLM-administered lands in the proposed ACEC now total about 12,285 acres. The proposed locatable mineral closure would be expanded to include all lands in the new proposed ACEC, including lands with the potential for occurrence of gypsum.

Lands and Realty Management

Additional lands have been identified as potentially suitable for disposal under section 203 of FLPMA. Those lands are listed in the supplement to appendix E.

Closures to operation of the general mining laws would remain in effect on additional land classified under the Classification Multiple Use (C&MU) act. Mineral closures would continue on about 3,560 acres in the Little Mountain proposed ACEC. These closure would protect significant caves (about 283 acres) and an area along Porcupine Creek (about 3,277 acres) that may be eligible for inclusion in the National Wild and Scenic Rivers System.

Minerals Management

Appendix K, Oil and Gas Operations, has been added to explain the possible sequence of oil and gas exploration and development activities and to describe the standard procedures governing geophysical exploration and oil and gas leasing, exploration, development, and abandonment.

Limitations on geophysical exploration have been modified to allow casual use on lands subject to "no surface occupancy" restrictions. Geophysical exploration would not be subject to ORV limitations. Instead, mitigation of potential effects from geophysical exploration would be covered by the Wyoming BLM standard mitigation guidelines for surface-disturbing activities (see appendix B).

Recreation

A new Special Recreation Management Area (SRMA) has been added. The Rivers SRMA would include the Clarks Fork of the Yellowstone River, the North Fork and the South Fork of the Shoshone River, and other fishing areas such as Newton Lakes.

Wild and Scenic Rivers

A new section has been added to reflect consideration of nine streams for inclusion in the National Wild and Scenic Rivers System. Porcupine Creek in Devil Canyon was determined eligible for further study and potential classification as a scenic river.

THE PROPOSED PLAN

Restrictions on Surface-Disturbing Activities

This section describes the restrictions that generally would be applied to surface-disturbing activities as conditions of land use. Later in the document, land use restrictions are described that would be applied in each ACEC.

Restrictions are described before other management actions are described because management actions in the proposed plan would operate within the constraints of these restrictions. This first section on land use restrictions is organized in order of the resources being protected by the restrictions. Most of the restrictions were developed from the "Wyoming BLM Standard Mitigation Guidelines for Surface Disturbing Activities," as described on pages 4 and 5 of the draft RMP/EIS (also see appendix B).

Activities that would be affected by these restrictions are leasable and salable minerals exploration and development, geophysical exploration (except casual use), and construction activities such as rights-of-way development. The BLM authorizes these types of activities and places lease or permit stipulations on them. In contrast, the BLM has limited management authority over mining claim operations conducted under the General Mining Law of 1872. Such operations are managed under the surface management regulations in 43 CFR 3809. Although the restrictions described in the following pages are not generally applied to mining claim activities, they can be used as a result of negotiations between claim operators, the BLM, and the Wyoming Department of Environmental Quality (DEQ).

Restrictions to Protect Important Resources

Caves

A "no surface occupancy" restriction on leasable minerals exploration and development would be applied on about 690 acres above Natural Trap, Horsethief, and Spirit Mountain caves. These areas generally would be closed to other surface-disturbing activities such as geophysical exploration (except casual use), salable minerals exploration and development, and right-of-way construction. Other important existing and newly discovered caves or cave passages would be protected in the same manner.

Cultural and Paleontological Resources

Avoidance areas for surface-disturbing activities would be designated in the immediately vicinity of significant paleontological and cultural resources. Avoidance areas also would be designated in the area within ¼ mile or the visual horizon of significant segments of historic trails and canals, whichever is closer. These provisions cover the Bridger Trail, the Nez Perce Trail, the Fort Washakie to Red Lodge stage route, and the Wiley and Sidon canals. This might result in the application of additional restrictions to such things as exploration for and development of leasable minerals, geophysical exploration, and construction activities in those areas.

Riparian Areas and Surface Water

Surface-disturbing activities would be prohibited within 500 feet of surface water and/or riparian areas except when such activities were necessary and when impacts could be mitigated or avoided. This restriction generally would apply to leasable and salable minerals exploration and development, geophysical exploration (except casual use), and construction activities.

Scenic Values

Surface-disturbing activities would be prohibited in Class II visual resource management

(VRM) areas except when visual impacts could be mitigated or avoided.

Soil and Watershed Values

Timber cutting would be allowed on slopes up to 45%. For the protection of fragile soils, other surface-disturbing activities would not be allowed on slopes of more than 25%.

Special Management Areas

A "no surface occupancy" restriction would be applied on fishing and hunting access areas (about 3,460 acres), Five Springs Falls Campground (about 40 acres), and Recreation and Public Purposes (R&PP) leases for the Buffalo Bill Shooting Complex and the Lovell Rod and Gun Club shooting range (about 400 acres). This restriction would apply to leasable minerals exploration and development. These areas generally would be closed to other surface-disturbing activities such as geophysical exploration (except casual use), salable minerals exploration and development, and construction activities except those related to development of recreation facilities.

On tracts managed under the Bighorn River Habitat Management Plan/Recreation Area Management Plan (HMP/RAMP—about 2,500 acres), oil and gas exploration and development would be limited by a "no surface occupancy" restriction. Bighorn River tracts generally would be closed to other surface-disturbing activities such as geophysical exploration (except casual use), salable minerals exploration and development, and construction activities (except those related to development of recreation facilities or wildlife habitat). The same restrictions also would be applied to BLM-administered lands in the Yellowtail Wildlife Habitat Management Unit (about 4,070 acres), which are also near the Bighorn River.

Wildlife Habitat

Bald Eagles

Surface-disturbing activities would be prohibited within 2½ miles of active bald eagle nest sites (currently about 2,480 acres of public land) unless effects on bald eagle essential habitat could be mitigated. This restriction would remain in effect until completion of site-specific management plans, after which the restriction would be reassessed. This restriction would apply to leasable and salable minerals exploration and development, geophysical exploration (except casual use), and construction activities.

Big Game

Seasonal restrictions would be applied to surface-disturbing activities and land uses on about 325,000 acres of big game crucial habitat, including winter ranges and elk calving areas. Generally, these restrictions would apply to leasable and salable minerals exploration and development, geophysical exploration (except casual use), recreation, and construction activities, including development of range projects.

During periods of severe winter weather (average of about two years out of ten) approval of the BLM would be required before snow could be removed to gain access for maintenance and operation of BLM authorized projects or activities in big game winter ranges. The purpose would be to minimize unnecessary disturbance during periods when wildlife are under stress.

Black-Footed Ferrets

To protect black-footed ferret habitat, surface-disturbing activities would be prohibited on about 1,300 acres in the black-footed ferret essential habitat area. This restriction would be applied to such things as leasable minerals exploration and development, geophysical exploration (except casual use), and construction activities.

Ferrets and Other Species

In high value recovery habitat areas outside the black-footed ferret essential habitat area, surface-disturbing activities would be prohibited to protect recovery habitat for black-footed ferrets, swift fox, burrowing owls, and other sensitive species. High value recovery habitat areas would be identified through ground surveys before BLM could apply the restriction. (Recovery habitats would include certain types of prairie dog colonies that generally occupy less than 40 acres each.)

In moderate and low value recovery habitat areas outside the black-footed ferret essential habitat area, surface-disturbing activities would be prohibited until searches could be conducted for black-footed ferrets, swift fox, burrowing owls, and other sensitive species. If these animals were located, the lessee or permittee would be required to modify activities to protect the animal and its habitat.

Grouse

Surface-disturbing activities would be prohibited on about 9,500 acres within ¼ mile of sage grouse and sharp-tailed grouse strutting grounds (leks). This restriction would apply to activities such as leasable and salable minerals exploration and development, geophysical exploration (except casual use), and construction activities.

Seasonal restrictions would be applied to surface-disturbing activities and land use on about 262,000 acres in grouse habitat areas within a 2-mile radius of lek centers. These restrictions would apply to leasable and salable minerals exploration and development, geophysical exploration (except casual use), recreation, and construction activities, including development of range projects.

The BLM would follow an objective of keeping unreclaimed surface disturbances on any given grouse habitat area to less than 10% of the total surface in that habitat area. Emphasis would be placed on improvement of present grouse habitat or development of other habitat suitable for grouse.

Peregrine Falcons

A "no surface occupancy" restriction would be applied on new mineral leases in peregrine falcon recovery habitat areas (about 9,000 acres in six locations). This restriction would continue for a period of ten years or until peregrine falcons became reestablished (whichever occurred first), after which the restriction would be reassessed.

In peregrine falcon recovery habitat areas, seasonal limitations would be placed on timber management actions (not including use of access), some recreation activities, oil and gas exploration and development on existing leases, geophysical exploration (except casual use), and construction activities. Surface uses would not be permitted from April 1 through July 31. These restrictions would continue for ten years or until peregrine falcons became reestablished (whichever occurred first), after which the restriction would be reassessed.

In peregrine falcon recovery habitat areas, the improvement and upgrading of existing roads and trails and the construction of new roads and aboveground power lines would be avoided, although road maintenance would be allowed.

Raptors

During the nesting period, a seasonal restriction would prohibit surface-disturbing activities within ¾ mile of raptor nests or the visual horizon of the nest, whichever is closer (about 40,260 acres). This generally would apply to such things as leasable and salable minerals exploration and development, geophysical exploration (except casual use), and construction activities, including development of range projects and treatments.

Road construction and improvement would be avoided whenever possible within ¾ mile of raptor nest sites or the visual horizon of the nest, whichever is closer. The purpose would be to limit increased vehicle use and related disturbances that could occur during the nesting period because of improved vehicle access.

Surface-disturbing activities would be prohibited if they would result in the loss of a specific active raptor nest or a structure on which a nest is built, or if they would cause loss of significant portions of concentration, foraging, or nesting habitat for raptors.

Management Actions by Resource Program

Air Quality

The objective for management of air quality is to maintain air quality at state Class II standards, or better. No specific management actions are associated with this program in the proposed plan, although other management actions, such as use of prescribed fire, would be conducted so as to avoid violation of the Wyoming and National ambient air quality standards.

Cultural Resource Management

The objective for management of cultural resources is to expand the protection, study, and interpretation of cultural and paleontological resources.

The BLM would complete emergency site stabilization and long-term protection projects on five known sites (about 60 acres), including the Hanson prehistoric occupation site and several rock art sites.

Cultural resource activity plans would be prepared for the Hanson prehistoric occupation site, several rock art occurrences, historic trails, including the Bridger Trail, the Nez Perce Trail, the Fort Washakie to Red Lodge stage route, and other important sites such as the Wiley and Sidon canals.

Fire Management

The objectives for fire management are (a) to use prescribed fire to meet resource management objectives (such as improvement of wildlife habitat and range condition), and (b) to suppress wildfires for the protection of resource values, property, and human life.

Prescribed fire would be used to accomplish management objectives described in resource activity plans, including HMPs, allotment management plan (AMPs), and the Rattlesnake Mountain Forest Management Plan.

Under the proposed plan, full suppression of wildfires would be practiced in portions of the planning area west of Wyoming Highway 120 and in an area east of the Bighorn River. (This totals about 240,000 acres.) The remaining 841,000 acres of the planning area would be designated a limited suppression area (see map 2).

Some methods of wildfire suppression would be restricted in sensitive areas. For example, the use of heavy equipment would be restricted in areas of fragile soils, in wetland/riparian areas, on lands above significant caves, on Sheep Mountain west of Cody, on Carter Mountain, and in timbered areas on the east end of Rattlesnake Mountain.

Forestland Management

The objective for forestland management is to meet timber harvest objectives and improve forest and wildlife habitat values.

Approximately 1,500 cords of fuelwood—750 thousand board feet (MBF) per year—would be harvested.

About 300 acres would be planted and seeded with conifer species to regenerate areas previously denuded by wildfire and harvesting. Other harvested areas would be planted with conifer species if these areas did not regenerate naturally within 15 years of the harvest.

The BLM would allow precommercial thinning in overstocked areas and regenerated timber sale areas when trees in those areas reached the 20- to 30-year age class. An average of 30 acres per year would be thinned.

The Rattlesnake Mountain Forest Management Plan would be revised for better integration of forest and wildlife management practices.

About ½ miles of roads would be built annually to meet planned harvest needs. Possible road closures would be assessed individually. Generally, spur roads would be closed after completion of timber harvests.

Forestlands on Rattlesnake Mountain would be classified as a restricted management area where wildlife, watershed, and recreation resource values would be emphasized. Partial cutting, extended forest crop rotations, or other restrictions on forest management would be applied.

The BLM would seek to acquire administrative access along Trail Creek to Rattlesnake Mountain.

A maximum of 500 MBF of sawtimber would be harvested from about 70 acres annually. Silvicultural treatments would be designed to favor spruce and fir regeneration. Over the life of the plan, lodgepole pine would be clearcut from about 145 acres, and mixed conifers would be harvested from about 215 acres with the use of two-stage shelterwood and selective cutting techniques.

All forestlands outside the Rattlesnake Mountain area would be managed to enhance or maintain other resources or resource uses such as recreation opportunities, livestock grazing, wildlife, watershed, and scenic values. Some of these forestlands are on the west slope of the Bighorn Mountains, on Carter Mountain, and on Little Mountain.

Geothermal Resources

The objective for management of geothermal resources is to maintain opportunities for geothermal exploration and development.

Geothermal resources would be available for leasing in areas open to oil and gas leasing. All other areas would be closed to geothermal leasing. Exploration for and development of geothermal resources would be allowed subject to restrictions on surface-disturbing activities in the same manner that these restrictions are applied to oil and gas activities (see appendixes B and K and the "Restrictions" section of this proposed plan).

Anticipated Levels of Activity: No geothermal leasing or development interest has been identified in the planning area. It is anticipated that development will not occur within the next ten years.

Hazardous Materials and Waste

The objective for management of hazardous materials and waste is to protect public health and safety from hazardous waste contamination.

Hazardous Materials

For activities on public lands that use hazardous materials, the BLM would monitor precautionary measures and contingency plans to guard against releases or spills into the environment.

Hazardous Wastes

Public land sites contaminated with hazardous wastes would be reported, secured, and cleaned up according to applicable federal and state regulations. Parties responsible for contamination would be liable for cleanup and resource damage costs, as prescribed in federal and state regulations.

Other Hazards

If hazards should be identified, the BLM would provide warnings as appropriate and establish precautions regarding safety hazards associated with the use of any areas on public land.

Lands and Realty Management

The objectives for lands and realty management are to manage the public lands to support the goals and objectives of other resource programs, to respond to public demand for land use authorizations, and to acquire administrative and public access where necessary.

Access

The BLM would seek to acquire administrative access along Trail Creek to Rattlesnake Mountain.

Acquisition of public access to the Little Mountain and Cedar Mountain areas would have priority.

Public access opportunities in the Carter Mountain area would be maintained.

The BLM would retain recreational access to public lands along the North and South forks of the Shoshone River, to tracts covered by the Bighorn River HMP/RAMP, and to public land along the Clarks Fork of the Yellowstone River.

Landownership Adjustments

About 55,900 acres would be available for consideration for disposal under the public land sale authority of FLPMA (section 203), subject to site-specific disposal criteria (appendix E of the draft RMP/EIS). Priority would be given to disposal of lands to meet community needs. (See section on "Withdrawals and Classifications" for other lands that may have potential for future disposal.)

Whether or not the areas are included in the 55,900 acres mentioned above, the BLM would consider any proposals for disposal of BLM-administered public lands in the planning area. Lands considered for disposal under section 203 of FLPMA also may be considered for disposal by other means, including desert land patent, exchange, and R&PP patent. The preferred method of disposal would be through exchange.

Through land exchanges, the BLM would try to acquire nonfederal lands in sections 28, 29, 32, and 33, T. 56 N., R. 94 W.; sections 4 and 5, T. 55 N., R. 94 W., and in other areas that contain recovery habitat for threatened or endangered species.

The Franklin Floyd exchange proposal would be pursued to obtain about 180 acres that would complement wildlife habitat management in the Bighorn River HMP/RAMP area.

Other lands would be considered for acquisition individually. (Appendix E of the draft RMP/EIS contains information on lands for potential acquisition.)

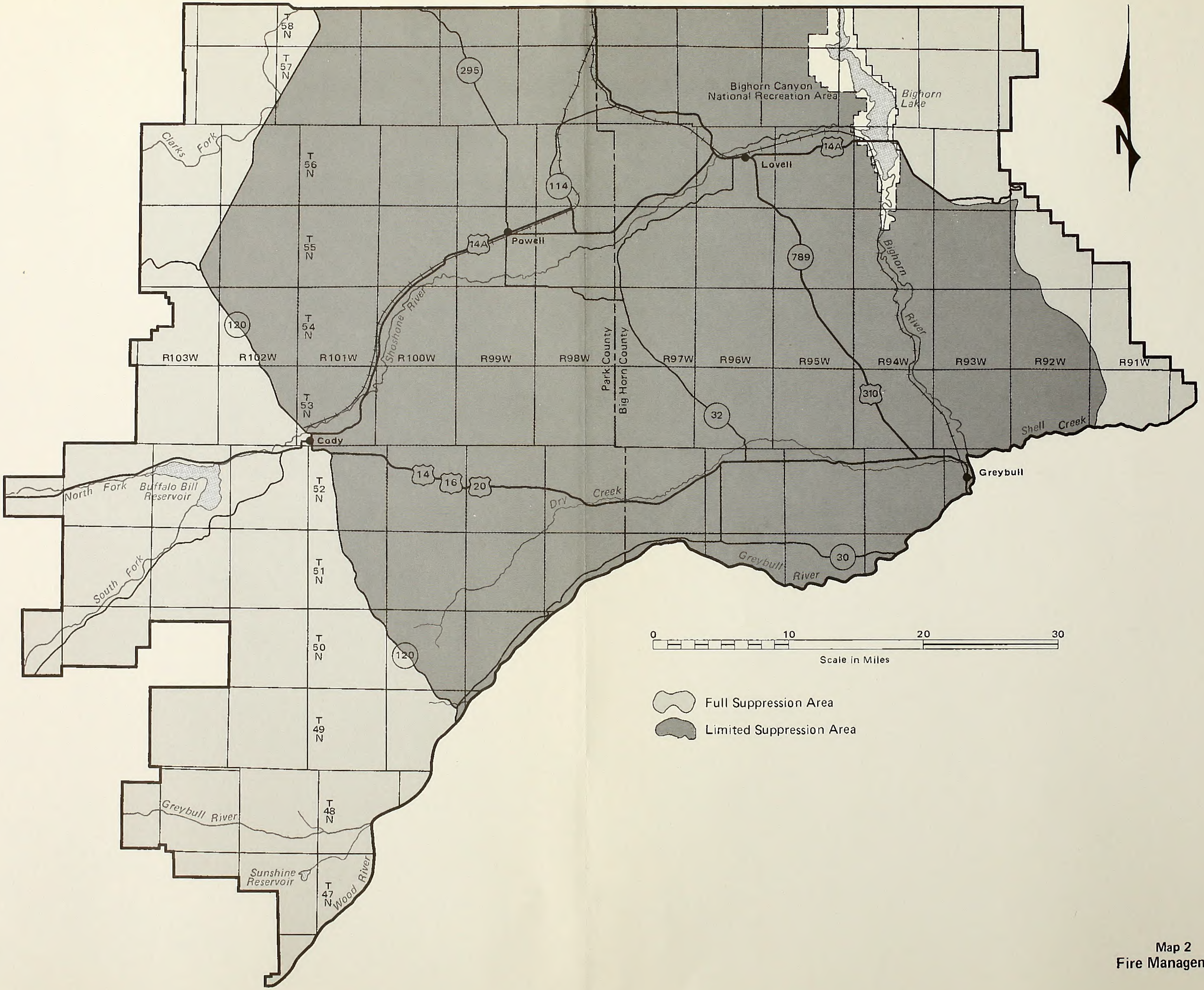
Anticipated Levels of Activity: An average of about 2,000 acres per year would be disposed of over a period of 10 to 20 years through desert land patents, mineral patents, and R&PP patents and public sale. About 500 acres per year would be disposed of through exchanges, and an equal acreage would be acquired through these exchanges.

Utility/Transportation Systems

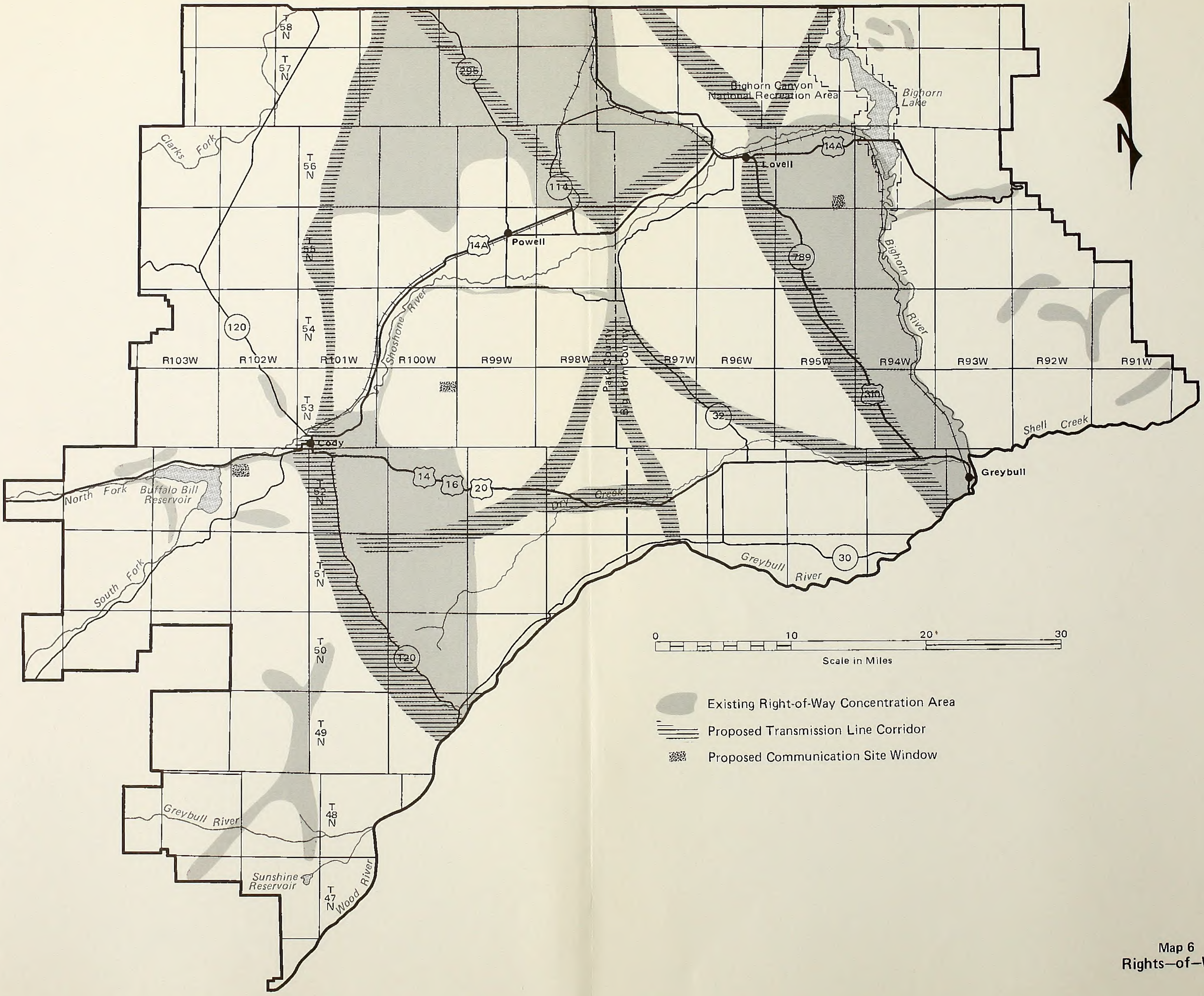
When rights-of-way would be required in avoidance areas or when the area could not reasonably be avoided, the effects of right-of-way construction would be intensively mitigated.

Areas that would be designated as utility and pipeline corridors and communication site windows are shown on map 6. These areas would include existing right-of-way concentration areas and three communication sites. Designated corridors and windows would be the preferred locations for placement of future communication sites and utility pipeline rights-of-way. Transportation corridors would not be designated.

To protect scenic quality, placement of above-ground facilities such as power lines would be avoided along major transportation routes to the extent possible.



Map 2
Fire Management



Map 6
Rights—of—Way

A right-of-way avoidance area for construction of aboveground power lines would be designated within 2 miles of the Bighorn River and within 1 mile of the Shoshone and Greybull rivers and the Clarks Fork of the Yellowstone. The avoidance area would be designated to reduce mortality of raptors, waterfowl, and other water birds from electrocution and collisions (see revised map 10).

The Bighorn River HMP/RAMP area would be designated a right-of-way avoidance area to protect wildlife, scenic, and recreational values.

The black-footed ferret essential habitat area would be designated a right-of-way avoidance area for roads and aboveground power lines. The purpose of this designation would be to minimize surface disturbances in the essential habitat area and to reduce the number of raptor perch sites from which raptors could prey upon ferrets.

Lands within 2½ miles of active bald eagle nests and within ¾ mile of other raptor nests would be designated right-of-way avoidance areas for road construction.

Peregrine falcon recovery habitat areas would be designated avoidance areas for the placement of new roads and aboveground power lines.

Significant segments of historic trails would be avoided for the placement of all types of rights-of-way. Where feasible, rights-of-way would be placed across trail routes in existing right-of-way crossing areas.

Anticipated Levels of Activity: It is anticipated that during the next ten years about 650 to 700 acres will be disturbed by pipeline rights-of-way, 550 to 600 acres by power line construction, 3,000 acres by road rights-of-way, and 250 to 300 acres by other types of right-of-way construction. More detailed information concerning foreseeable right-of-way development is on file in the management situation analysis, which is available at the Cody Resource Area office.

Withdrawals and Classifications

About 202,000 acres of land withdrawn by the Bureau of Reclamation (BOR) would be opened to operation of the general mining laws and the public land laws. On about 27,300 acres of lands withdrawn for the BOR and other federal agencies (not including BLM), closures to the mining and public land laws would remain in effect.

About 500,000 acres of C&MU classified lands would be opened to operation of the public land laws. About 680 acres of C&MU classified lands also would be opened to operation of the general mining laws. For the protection of recreation values and rare plants at Five Springs Falls, important caves on Little Mountain, and scenic river eligibility for Porcupine Creek, about 3,720 acres of C&MU classified lands would remain closed to operation of the general mining laws.

The Newton Lakes area (about 480 acres) and the Heart Mountain Relocation Site (about 320 acres) would be protected by a "no surface occupancy" restriction on oil and gas exploration and development. Other surface-disturbing activities generally would be prohibited. These activities would include such things as salable minerals exploration and development and right-of-way construction (except rights-of-way related to development of recreational or interpretive facilities).

Interpretive facilities would be developed at the Heart Mountain Relocation Site to enhance cultural and historic values.

The Newton Lakes area and the Heart Mountain Relocation Site would continue to be closed to locatable mineral development.

About 7,200 acres of BOR-withdrawn lands would be considered for disposal under the public land sale authority of FLPMA (section 203) after these lands were restored to operation of the public land laws (see appendix E of the draft RMP/EIS).

Livestock Grazing Management

The objective for livestock grazing management is to improve forage production and ecological condition for the benefit of livestock use, wildlife, and watershed resources.

Short-term livestock grazing use would vary from about 71,741 to 90,895 AUMs of forage use annually.

Short-term reductions in livestock use would be implemented on 47 allotments to reduce conflicts with wildlife. To protect about 1,800 acres of wetland/riparian areas, other livestock use would be managed by the development of off-site water sources or by the elimination of grazing.

Long-term livestock grazing use would vary from about 73,070 to 75,354 AUMs annually (see appendix G of this document).

The actual level of livestock grazing use would be based on monitoring and/or negotiation with grazing permittees.

Spring grazing would be modified on about seven "I" category allotments through the use of spring deferment grazing. Spring grazing on the other "I" category allotments would be modified, as appropriate, on the basis of results of monitoring.

Grazing season of use would remain the same on "M" and "C" category allotments.

Prairie dog town expansion would be controlled only in two allotments on about 225 acres.

Livestock grazing would not be allowed in Bighorn River HMP/RAMP tracts (about 2,500 acres).

High intensity monitoring would be conducted on top priority "I" allotments and on AMP areas and allotments of the McCullough Peaks wild horse herd management area. Low intensity monitoring would be conducted on other "I" allotments and on "M" and "C" category allotments.

AMPs would be developed for all allotments in the planning area. The intensity of the management plans would depend on allotment condition and resource conflicts.

Range projects, land treatments, and grazing systems would be developed to increase forage availability for livestock use and to enhance wildlife, watershed, and wetland/riparian area values (see appendix G of this document).

Structural projects would be constructed in about 30 allotments; land treatments would be carried out on about 29 allotments; and grazing systems would be implemented in about 14 allotments.

Portions of allotments that are outside withdrawn stock driveways and are affected by trailing would be monitored to determine whether the allotment could accommodate trailing without unacceptable effects on resources. The BLM would reserve the right to modify routes of historic trailing use, to mitigate any impacts associated with trailing, or to deny trailing use if the impacts could not be adequately mitigated. Although the BLM would modify trailing use as appropriate, stock driveway withdrawals generally would be retained.

Minerals Management

The objective for management of the minerals program is to maintain or enhance opportunities for mineral exploration and development.

Leasable Minerals—Coal

The coal screening process has not been conducted. Interest in exploration or leasing would be handled case by case. If an application for a coal lease should be received sometime in the future, an appropriate land use and environmental analysis, including the coal screening process, would be conducted to determine whether or not the coal areas applied for are acceptable for development and for leasing consideration. The RMP would be amended as necessary.

Anticipated Levels of Activity: To date, no interest has been expressed in coal leasing and development in the planning area. It is anticipated that there would be no coal development in the planning area in the next ten years.

Leasable Minerals—Geophysical Exploration

The planning area would be open to geophysical exploration except for lands identified as closed to oil and gas exploration and lands with "no surface occupancy" restrictions for oil and gas. In the latter group of lands, only casual use geophysical exploration would be allowed. Geophysical exploration on open lands would be subject to restrictions on surface-disturbing activities. These restrictions would apply to all geophysical exploration, whether done on land already under an oil and gas lease or on land not under lease (see "Restrictions" section of this document and appendixes B and K).

Anticipated Levels of Activity: It is estimated that geophysical exploration would occur on about 300 miles of seismic lines per year. More detailed information concerning foreseeable levels of geophysical exploration is on file in the management situation analysis, which is available at the Cody Resource Area office.

Leasable Minerals—Oil and Gas

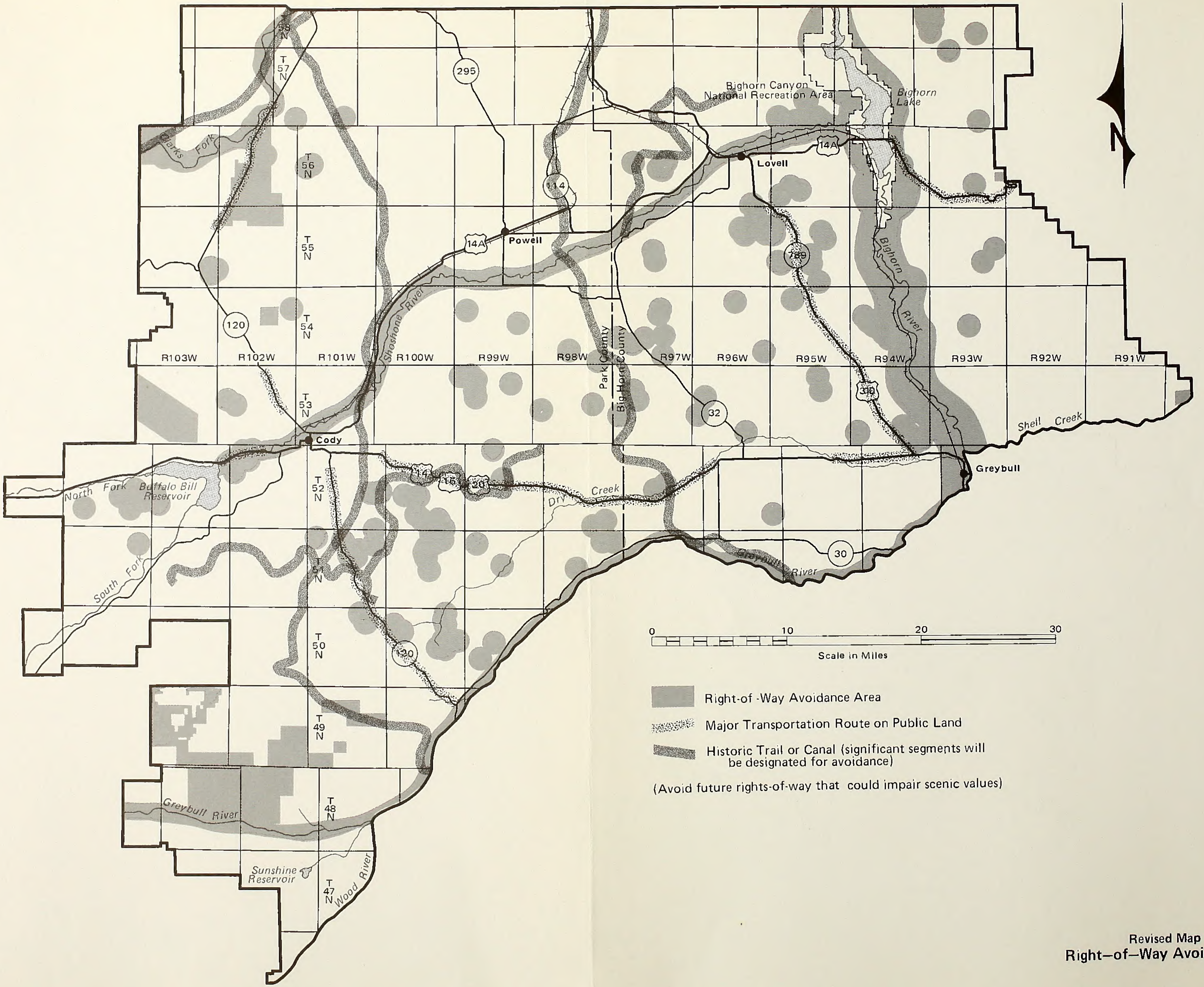
Oil and gas reclamation plans would be prepared to improve reclamation in old fields throughout the planning area and to allow for orderly development of new fields.

Table 3 shows the percentage of federal mineral estate in the planning area with high, moderate, and low potential for hydrocarbon occurrence on which oil and gas activities would be restricted.

Map 19 shows oil and gas fields and areas with high, moderate, and low potential for hydrocarbon occurrence. Map 20, revised map 25, and map 29 show areas in which oil and gas activities would be restricted.

Anticipated Levels of Activity: It is estimated that 40 to 50 wildcat wells and 620 to 630 development wells would be drilled in the planning area during the next ten years.

Development wells would be drilled in or near existing oil and gas fields. Wildcat wells would lead to the discovery of an estimated total of six new fields, each of which probably would pro-



Revised Map 10
Right—of—Way Avoidance Areas

TABLE 3

RESTRICTIONS ON SURFACE DISTURBANCE IN AREAS WITH HIGH, MODERATE OR LOW HYDROCARBON POTENTIAL

	Area Affected in Each Category (percentage)[1] Alternative			
Type of Restriction	A	B	C[2]	D[3]
High Potential Areas—1,101,000 Acres				
No leasing	1.3	1.3	1.9	1.3
"No surface occupancy" restrictions[4]	3.6	0.9	8.1	2.0
No surface use or activity[5]	14.5	14.5	10.5	14.5
Surface occupancy allowed for more than 6 months[6]	72.1	82.0	70.3	73.0
Seasonal restrictions—Open 3 to 6 months	8.4	1.2	9.1	9.1
Seasonal restrictions—Open less than 3 months	0.1	0.1	0.1	0.1
Moderate Potential Areas—286,600 Acres				
No leasing	0	0	0.5	0
"No surface occupancy" restrictions[4]	6.0	3.8	17.6	6.4
No surface use or activity[5]	11.5	11.5	7.5	11.5
Surface occupancy allowed for more than 6 months[6]	82.2	84.4	74.1	81.8
Seasonal restrictions—Open 3 to 6 months	0.3	0.3	0.3	0.3
Seasonal restrictions—Open less than 3 months	0	0	0	0
Low Potential Areas—120,600 Acres				
No leasing	0	0	0.1	0
"No surface occupancy" restrictions[4]	7.3	1.7	17.9	4.9
No surface use or activity[5]	21.0	21.0	19.7	21.0
Surface occupancy allowed for more than 6 months[6]	67.9	73.5	58.5	70.3
Seasonal restrictions—Open 3 to 6 months	3.6	3.6	3.6	3.6
Seasonal restrictions—Open less than 3 months	0.2	0.2	0.2	0.2

Note: Oil and gas fields are shown in map 19; areas in which oil and gas activities are restricted are shown on maps 20 through map 29 of the draft RMP/EIS.

[1] Percentage of federal mineral estate in this category on which these restrictions would be applied.

[2] Percentages in Alternative C reflect the maximum level of restriction that could be applied if "no surface occupancy" guidelines were invoked in all sage grouse and sharp-tailed grouse habitat areas and in the proposed Chapman Bench Area of Critical Environmental Concern.

[3] Percentages in Alternative D reflect the maximum level of restriction that could be applied if "no surface occupancy" guidelines were invoked in the proposed Chapman Bench Area of Critical Environmental Concern.

[4] See the "No Surface Occupancy Guideline" section of appendix B of the draft RMP/EIS.

[5] This restriction is similar to the "No Surface Occupancy Guideline" except that it is applied to protect wildlife resources. (See the "Wildlife Mitigation Guideline" section of appendix B of the draft RMP/EIS.)

[6] Includes lands with seasonal guidelines and lands subject to standard mitigation guidelines that limit activities on slopes and in scenic areas or protect riparian areas and historic trails. (See the "Surface Disturbance Mitigation Guidelines" section of appendix B of the draft RMP/EIS.)

duce less than 1 million barrels of oil or 6 billion cubic feet of natural gas during its lifetime. Approximately 30 to 35 development wells would be drilled in these six new fields (see "Restrictions" section of this document and appendixes B and K). More detailed information concerning foreseeable levels of oil and gas exploration and development is on file in the management situation analysis, which is available at the Cody Resource Area office.

Locatable Minerals

Bighorn River HMP/RAMP tracts (about 2,500 acres) would be closed to locatable mineral entry to protect recreational values and wildlife habitat.

Plans of operations or notices of intent would be required for locatable mineral exploration and development (except casual use) consistent with regulations.

Anticipated Levels of Activity: About 400 acres of disturbance per year would be caused by bentonite mining, which would be primarily on the west flank of the Bighorn Mountains and the southern flank of the Pryor Mountains north of Cowley and Lovell.

About 5 acres per year would continue to be disturbed by gypsum mining, and less than 5 acres per year would be disturbed by uranium exploration and development.

Salable Minerals

Sales of mineral materials from existing sites would be allowed. Proposed sales from new sites would be evaluated individually.

Anticipated Levels of Activity: About 40 acres per year would be disturbed by mining for salable minerals.

Off-Road Vehicle Management

The objectives for off-road vehicle (ORV) management are to maintain or enhance opportunities for ORV use and to mitigate effects on resource values.

ORV use in the planning area would be limited to existing roads and trails except as described below and shown on map 13. (Acreages listed in this section are not additive because of overlap.)

ORV play areas would be established in suitable areas such as the bentonite hills near Lovell, Irma Flats/Diamond Basin near Cody, the Lovell Lakes motocross area, and areas near Powell and Greybull. These areas would be designated either open to all uses or limited to specific types of ORV use, depending on management needs.

Bullet impact zones comprising about 2,000 acres around the Buffalo Bill Shooting Complex and the Lovell Rod and Gun Club shooting range would be closed to ORV use.

ORV use would be limited to designated roads and trails on about 95,800 acres to protect visual resources in areas with Class II VRM ratings and fragile soils.

On about 12,780 acres of threatened or endangered species habitat, ORV use would be limited to designated roads and trails, or seasonal restrictions would be applied.

ORV use would be limited to designated roads and trails on about 1,000 acres to protect significant cultural resources.

ORV use would be limited to designated roads and trails on about 2,000 acres over cave passages.

ORV use would be limited to designated roads and trails in the Bighorn River and West Slope SRMAs (about 207,300 acres).

To enhance management of forest and wildlife habitat, ORV use would be limited to designated roads and trails on about 19,000 acres on Rattlesnake Mountain.

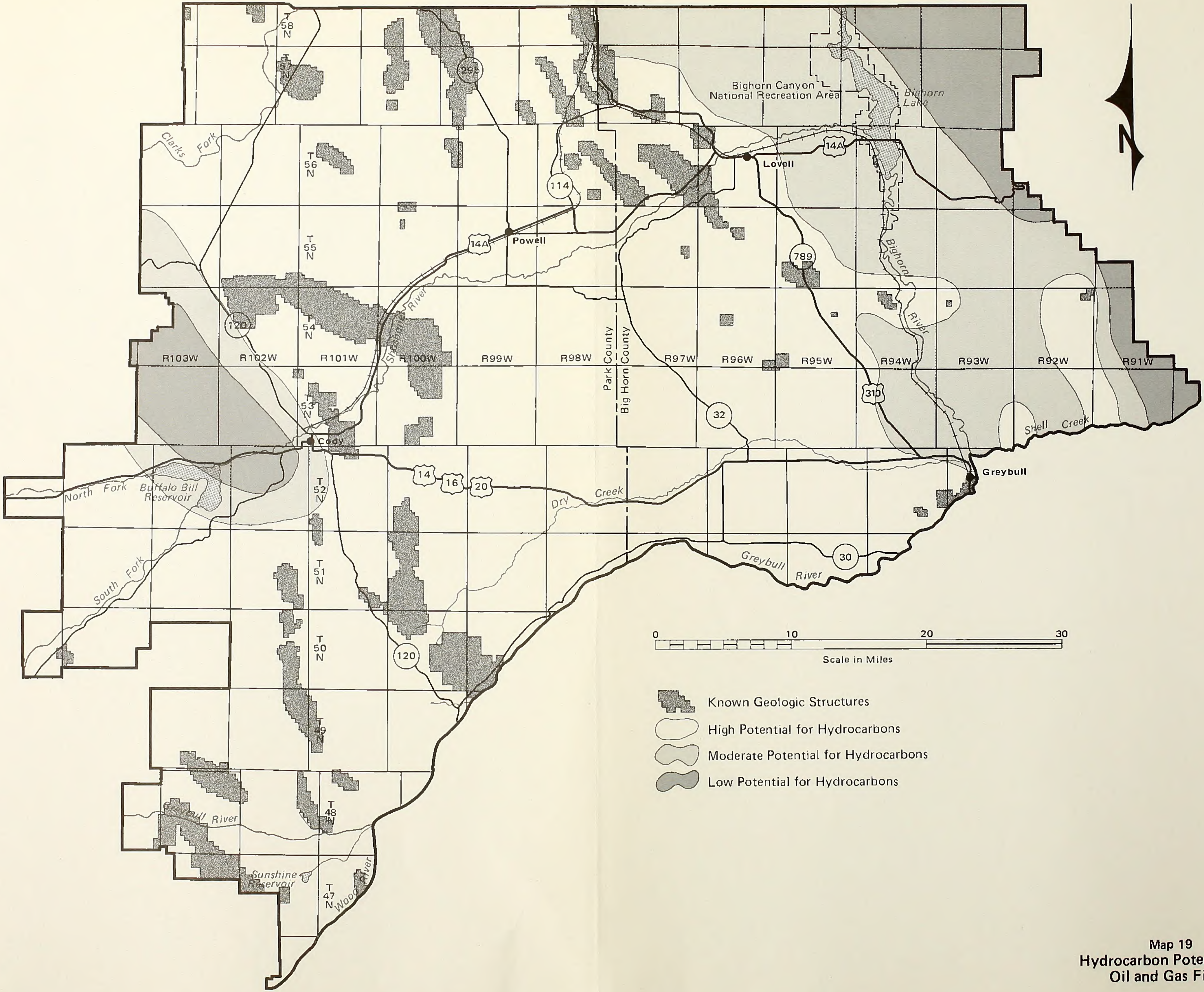
Recreation Management

The objective for recreation management is to enhance opportunities for primitive recreation while increasing visitor services in some areas to meet needs for more developed forms of recreation.

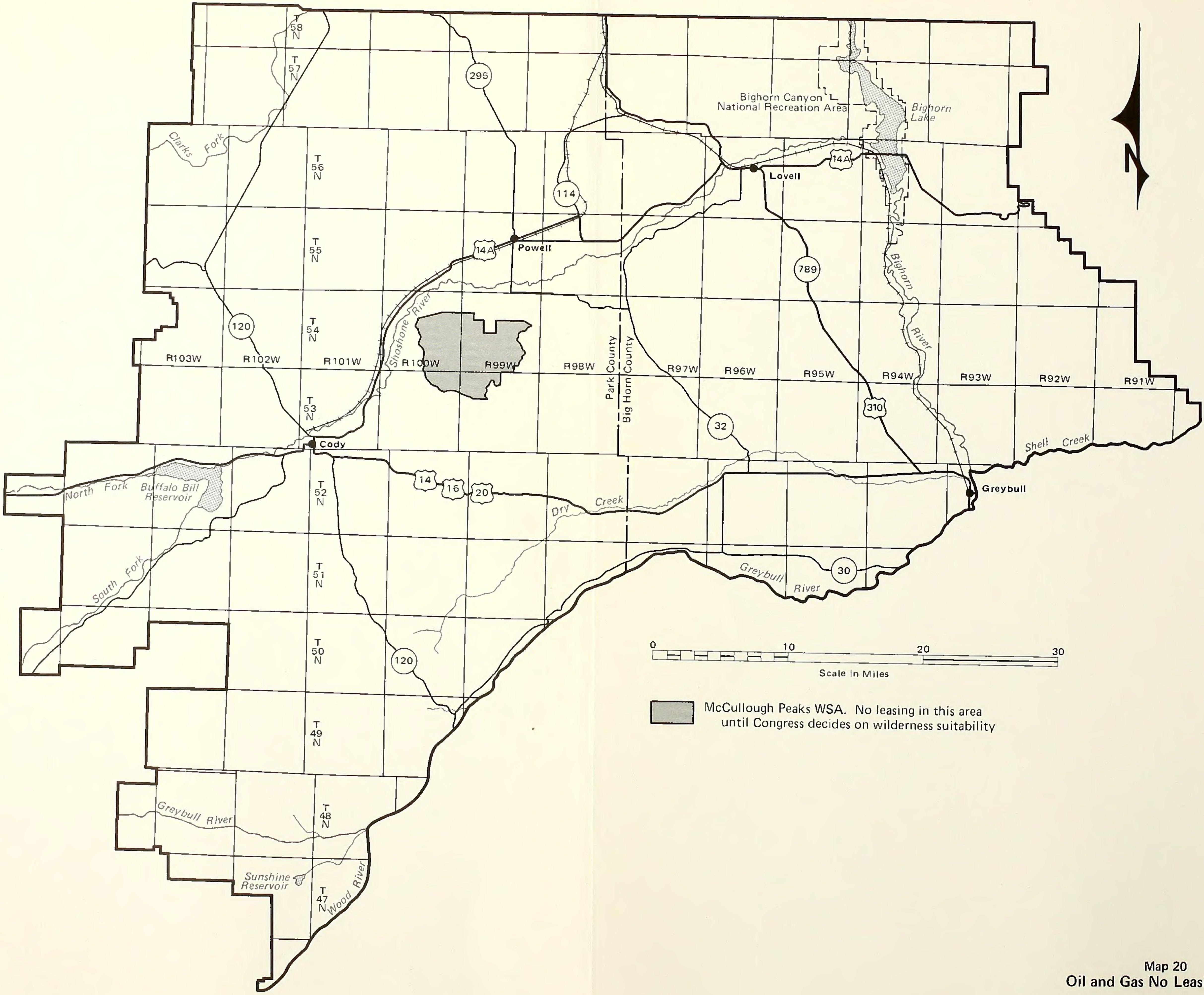
Cave management in the Worland Caves SRMA would continue under the Worland Cave Management Plan. Caves with significant resource values would be added to the Worland Caves SRMA (see map 14).

Recreational use of the Bighorn River for fishing, hunting, and float boating would be managed under the Bighorn River HMP/RAMP.

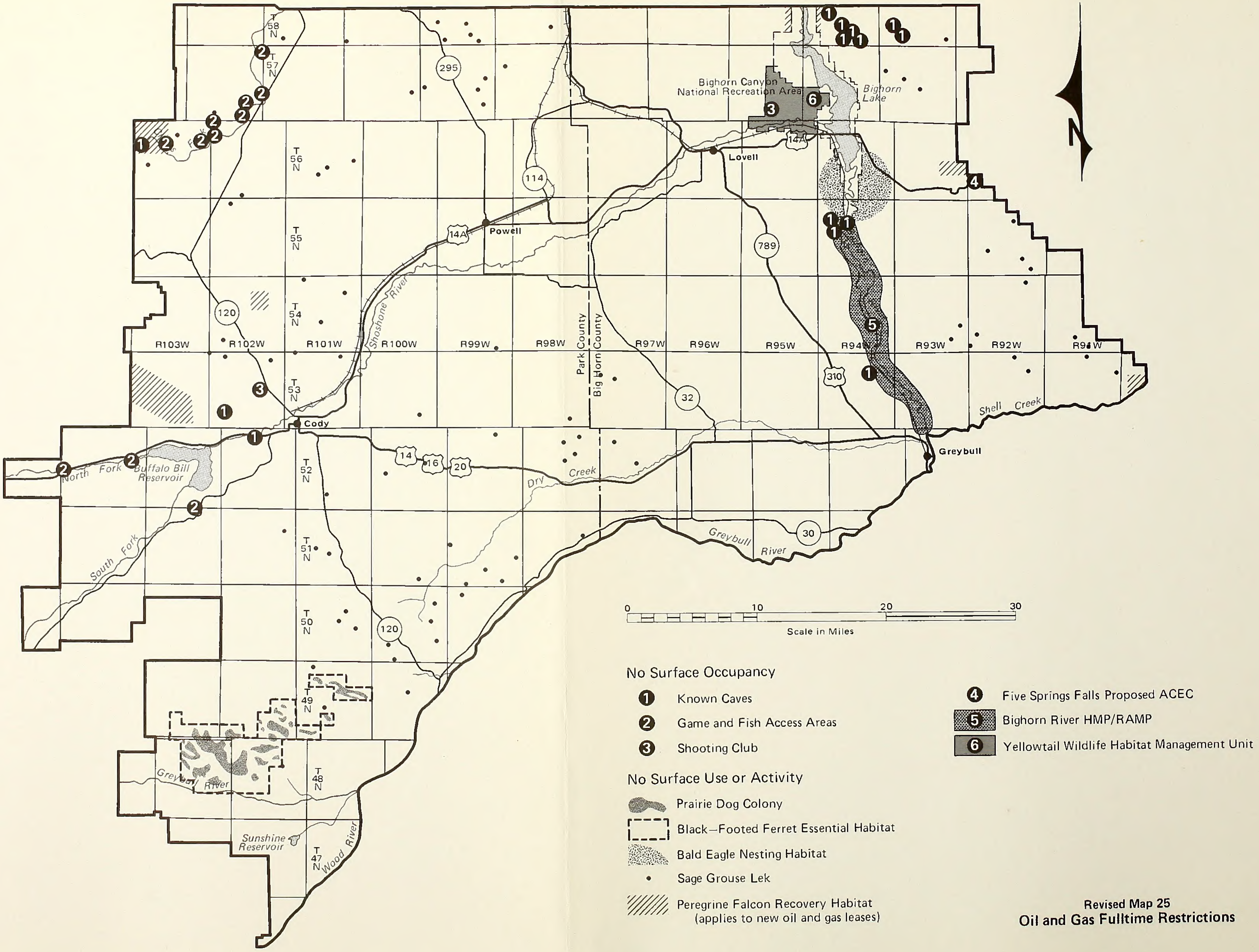
Four additional SRMAs would be designated. The West Slope SRMA (covering the west slope of the Bighorn Mountains) and the Bighorn River SRMA would total about 207,300 acres. About 5,000 acres would be designated an SRMA along the North and South Forks of the Shoshone River and on the Clarks Fork of the Yellowstone River.



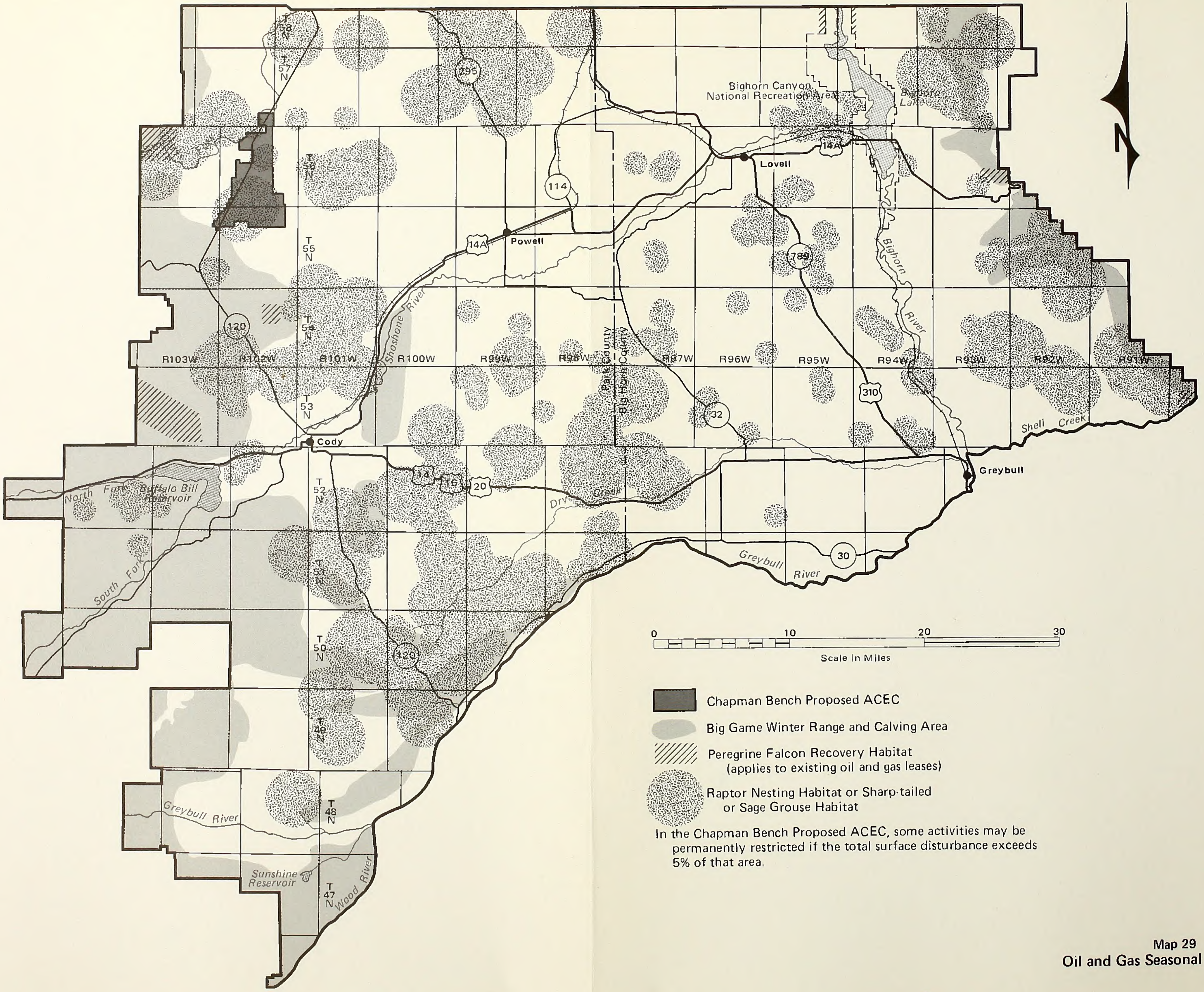
Map 19
Hydrocarbon Potential and
Oil and Gas Fields



Map 20
Oil and Gas No Leasing Areas

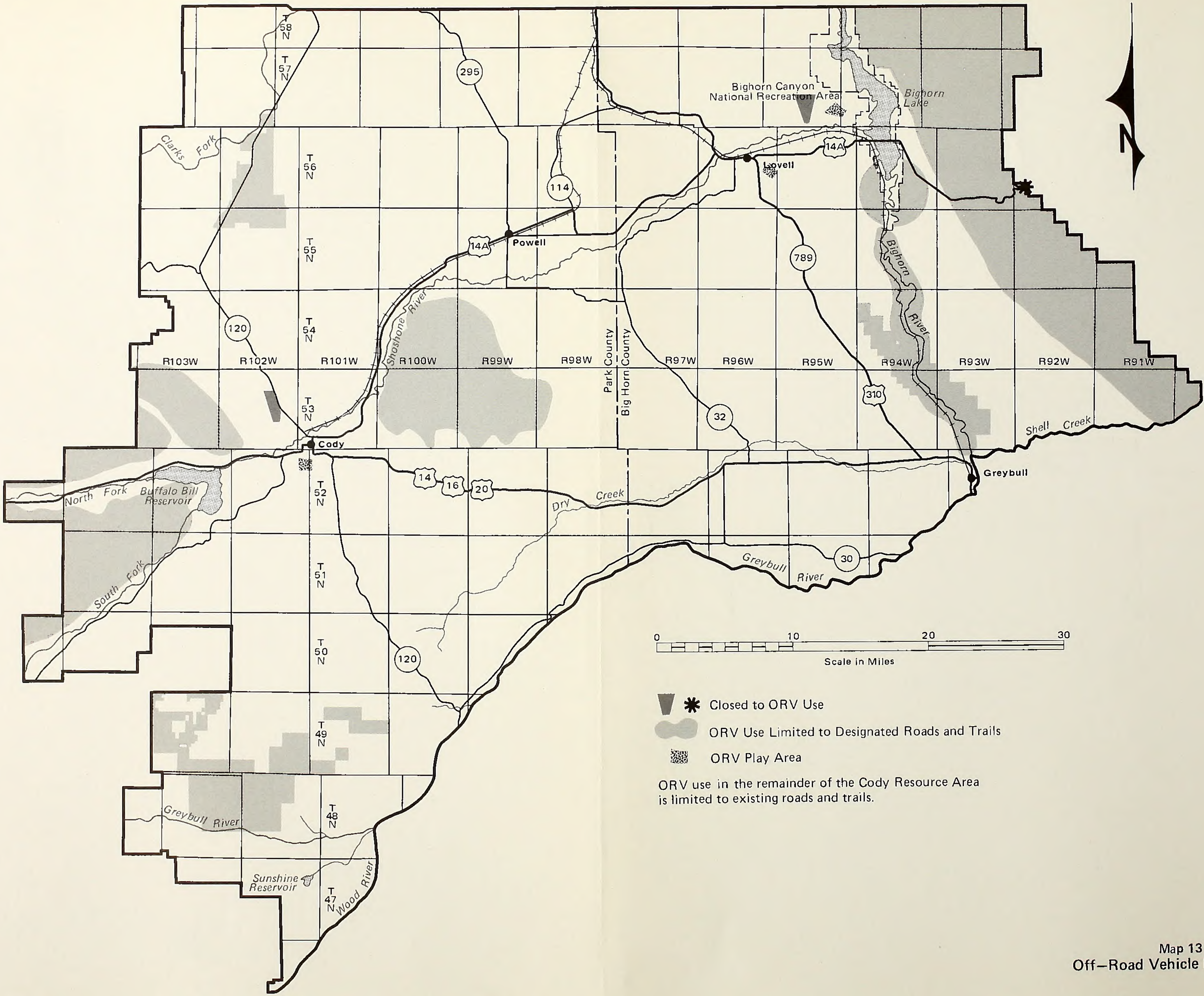


Revised Map 25
Oil and Gas Fulltime Restrictions

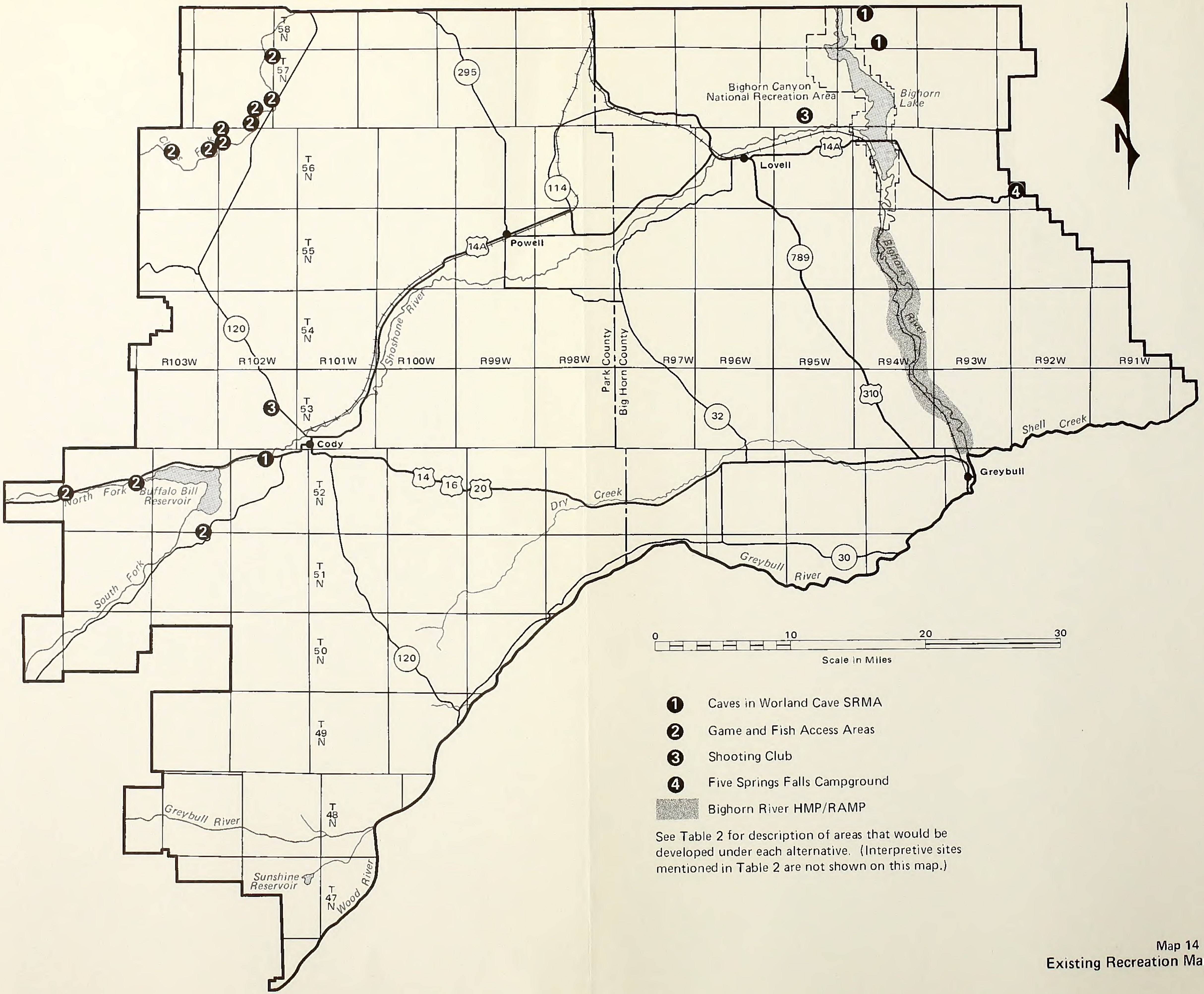


In the Chapman Bench Proposed ACEC, some activities may be permanently restricted if the total surface disturbance exceeds 5% of that area.

Map 29
Oil and Gas Seasonal Restrictions



Map 13
Off–Road Vehicle Management



See Table 2 for description of areas that would be developed under each alternative. (Interpretive sites mentioned in Table 2 are not shown on this map.)

Map 14
Existing Recreation Management Areas

[illegible]

[illegible]

The objectives of this SRMA would be to maintain the existing natural and scenic characteristics of the Clarks Fork of the Yellowstone River and to maintain access for public recreation on the Clarks Fork, North Fork, and South Fork Rivers. Another SRMA would comprise significant segments of historic trails (see revised map 15). Activity plans would be developed for all SRMAs.

All portions of the planning area not designated SRMAs would be designated an extensive recreation management area (ERMA), and an activity plan would be developed for the ERMA.

The BLM would develop recreation sites at Rainbow Canyon, at Hogan Reservoir, and on designated Bighorn River tracts.

An interpretive site would be developed for the McCullough Peaks wild horse herd area. Additional directional and interpretive signs would be installed to facilitate recreational use of the west slope of the Bighorn Mountains; Cedar Mountain; the Nez Perce and Bridger historic trails; the Fort Washakie to Red Lodge stage route; the Shoshone, Greybull, and Bighorn rivers; and the Clarks Fork of the Yellowstone River.

Visual Resource Management

The objective for visual resource management is to maintain or improve scenic values and visual quality.

Visual resource values would be considered before land uses would be authorized. Visual resources would be managed in accordance with objectives for VRM classes that have been assigned to the planning area. These VRM classes are shown on map 16. Adverse effects on visual resources would be mitigated through the use of Wyoming BLM standard mitigation guidelines (appendix B). The BLM's system of visual resource management is described in appendix H of the draft RMP/EIS.

Watershed Management

The objectives for watershed management are to stabilize and conserve soils, to increase vegetative production, and to maintain or improve water quality.

About 700 acres of spreader dikes and ten detention dams would be maintained. Other watershed projects would be maintained as necessary.

Water quality would be monitored in areas where noxious weeds were treated. Priority for monitoring would be assigned to municipal watersheds, fish hatchery supply watersheds, and domestic or agricultural use watersheds with major fish-bearing streams.

To reduce sediment loadings in streams and river segments, the BLM would implement "best management practices" recommended in the state of Wyoming's Bighorn Basin water quality plans (see appendix I of the draft RMP/EIS). These BMPs would be contained in various BLM activity plans and in BLM use authorizations, as appropriate. Priority stream segments for use of BMPs and development of watershed activity plans would as follows:

Priority 1. Shoshone River from its confluence with the Bighorn River to Buffalo Bill Dam. Within the Shoshone subbasin, priority drainages would be Whistle, Deer, Coon, and Sand creeks, Roan Wash, and Foster Gulch.

Priority 2. Bighorn River from Bighorn Reservoir to Greybull. Within the Bighorn subbasin, priority drainages would be Crystal, Bear, and Dry Bear creeks (see map 17).

The BLM might acquire oil and gas exploratory wells and geophysical drill holes that produce water. These wells would be developed for multiple use if they met the criteria listed in appendix I of the draft RMP/EIS for water well conversion.

To obtain valid water rights, the BLM would file all water-related projects with the Wyoming State Engineer's office.

If karst areas were discovered that exhibit underground drainage characteristics similar to those in the Spanish Point Karst proposed ACEC (in the Washakie Resource Area), they would be proposed for ACEC designation.

Wild and Scenic Rivers

Nine stream segments were studied to determine their potential for inclusion in the National Wild and Scenic Rivers System. New table 1 reflects the analysis and conclusion of this proposal (see new map 1).

Wilderness Study Areas

Recommendations for designation or nondesignation of WSAs as wilderness would be submitted to Congress through the Director of the BLM, the Secretary of the Interior, and the President. (Management prescriptions for the 24,570-acre McCullough Peaks WSA and recommendations regarding wilderness designation or nondesignation are covered in the Grass Creek/Cody Wilderness EIS; therefore, they have not been repeated in this document.) Until Congress acts, the McCullough Peaks WSA would be managed under the BLM's interim management policy. Whatever decision Congress makes on this WSA will become part of the final Cody RMP, and if necessary the RMP will be amended.

Wild Horse Management

The objective for management of wild horses in the McCullough Peaks area is to maintain a viable herd of wild horses so that the free-roaming nature of the herd would be maintained and opportunities would be available for the public to view wild horses.

The McCullough Peaks wild horse herd area would be managed so that an overall population of 100 horses would be maintained. All horses have been removed from the Foster Gulch herd management area as outlined in the wild horse herd area management plan (USDI, BLM 1985). Although the Foster Gulch area would not be managed for wild horses, its status as a wild horse herd area would be maintained (see map 18).

Approximately 5 miles of fence would be built adjacent to private land on the northern boundary of the McCullough Peaks herd area to contain wild horses in the herd area.

Wildlife and Fish Habitat

The objective for management of wildlife and fish habitat is to maintain and enhance fish and wildlife resources so that the forage production and quality of rangelands and fish and wildlife habitat would be maintained or improved.

The condition of uncommon and important wildlife habitats would be maintained or improved through vegetative manipulations, standard mitigative measures, or other management actions. Uncommon and important wildlife habitats include wetlands; mountain shrublands; and Douglas-fir, Engelmann spruce-subalpine fir, and aspen-conifer forestlands.

The Peregrine Falcon Recovery, West Slope, Bighorn River, and Cody Wetlands HMPs would be revised as necessary and implemented.

Pending the development of a site-specific management plan, public lands within 2½ miles of active bald eagle nests (currently involving about 2,480 acres of public land) would be managed as essential habitat for bald eagle production and recovery.

The following areas would be incorporated into the Yellowtail Habitat Management Unit for bald eagle recovery: Tract 84 north of the Shoshone River, T. 56 N., R. 95 W., sec. 4, lots 3 and 4; sec. 5, lot 3; and sec. 6, lot 8. Management of these areas would be consistent with that of other lands in the habitat management unit.

Sagebrush control would be allowed in sensitive wildlife habitat areas subject to the use of restrictions to protect wildlife and wildlife habitat.

Sagebrush control would be allowed within 500 feet of water unless site-specific environmental analyses indicated a need for the restriction.

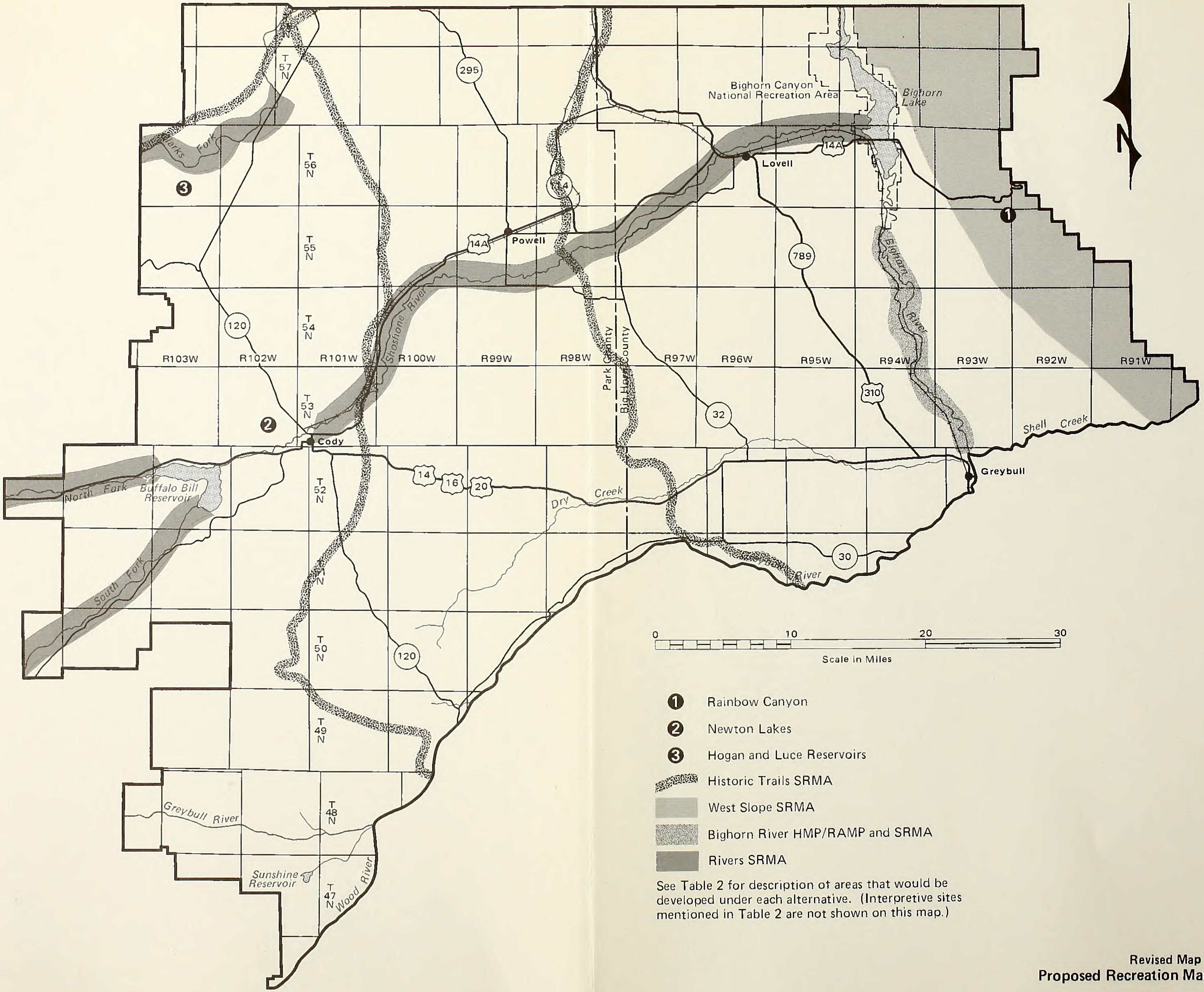
Wetlands and fisheries habitat would be managed to improve and enhance values through restrictions on surface-disturbing activities and implementation of management practices such as planting vegetation, installing structures and fences, reducing sedimentation, acquiring water sources, developing springs, and maintaining reservoirs.

So that existing prairie dog ecosystems could be maintained for the recovery of black-footed ferrets and burrowing owls and for better management of swift fox recovery, the use of poisons lethal to vertebrate animals would be avoided in the planning area. The use of poisons would be allowed only when no other control methods would be feasible or practical. Such use would be subject to established animal damage control procedures.

Chemical control of noxious weeds generally would be prohibited in areas designated as habitat for sensitive species. Exceptions would be considered only after environmental analysis and after consultation with county weed and pest control authorities regarding the need for treatment and methods of treatment.

For the protection of prey bases essential to the peregrine falcon and other birds, spraying of insecticides would not be allowed unless it was determined that economically important levels of insect infestation were present. Such spraying would be done only after the completion of site-specific environmental analyses. (More specific restrictions that would be applied locally in the Chapman Bench proposed ACEC are described under "Chapman Bench" in this proposed plan.)

The BLM would work cooperatively with the Wyoming Game and Fish Department (WGFD), the Forest Service (FS), and other agencies and organizations to determine the feasibility of reestablishing bighorn sheep on the West Slope of the Bighorn Mountains. If the reestablishment is feasible, the BLM would support this effort.



See Table 2 for description of areas that would be developed under each alternative. (Interpretive sites mentioned in Table 2 are not shown on this map.)

Revised Map 15
Proposed Recreation Management Areas

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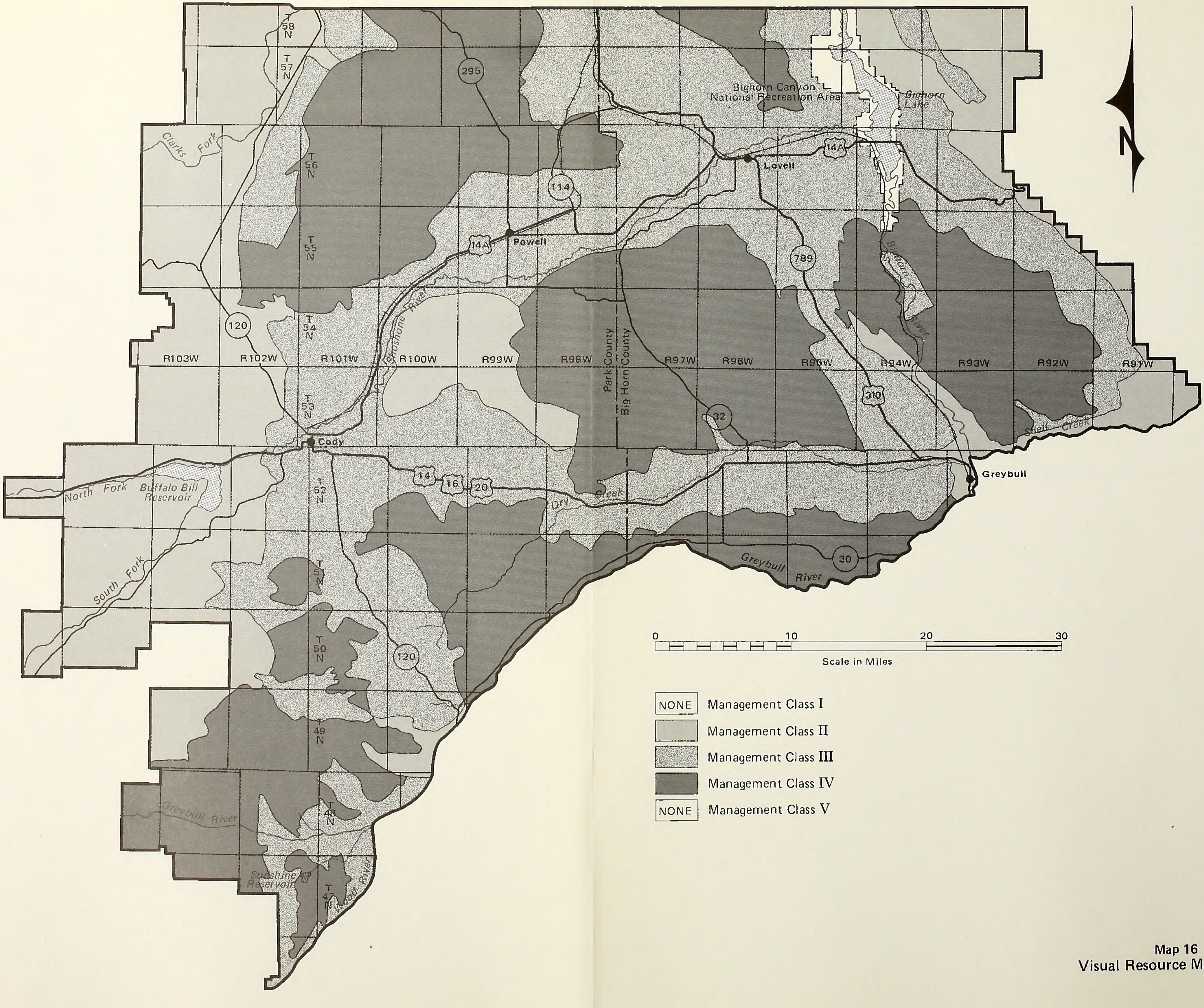
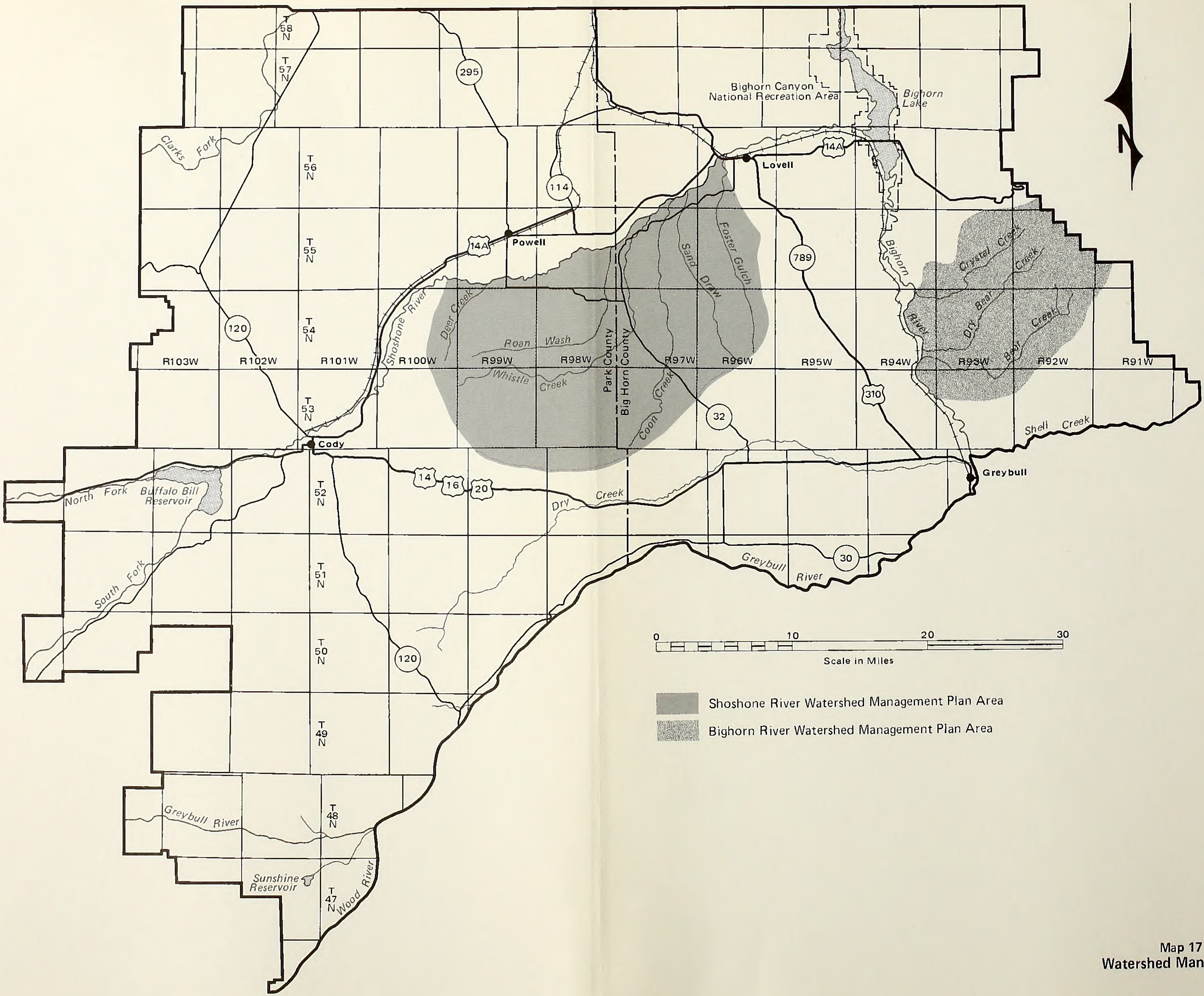
Proposed [illegible] Management Areas



Map 16
Visual Resource Management



Map 17
Watershed Management

NEW TABLE 1

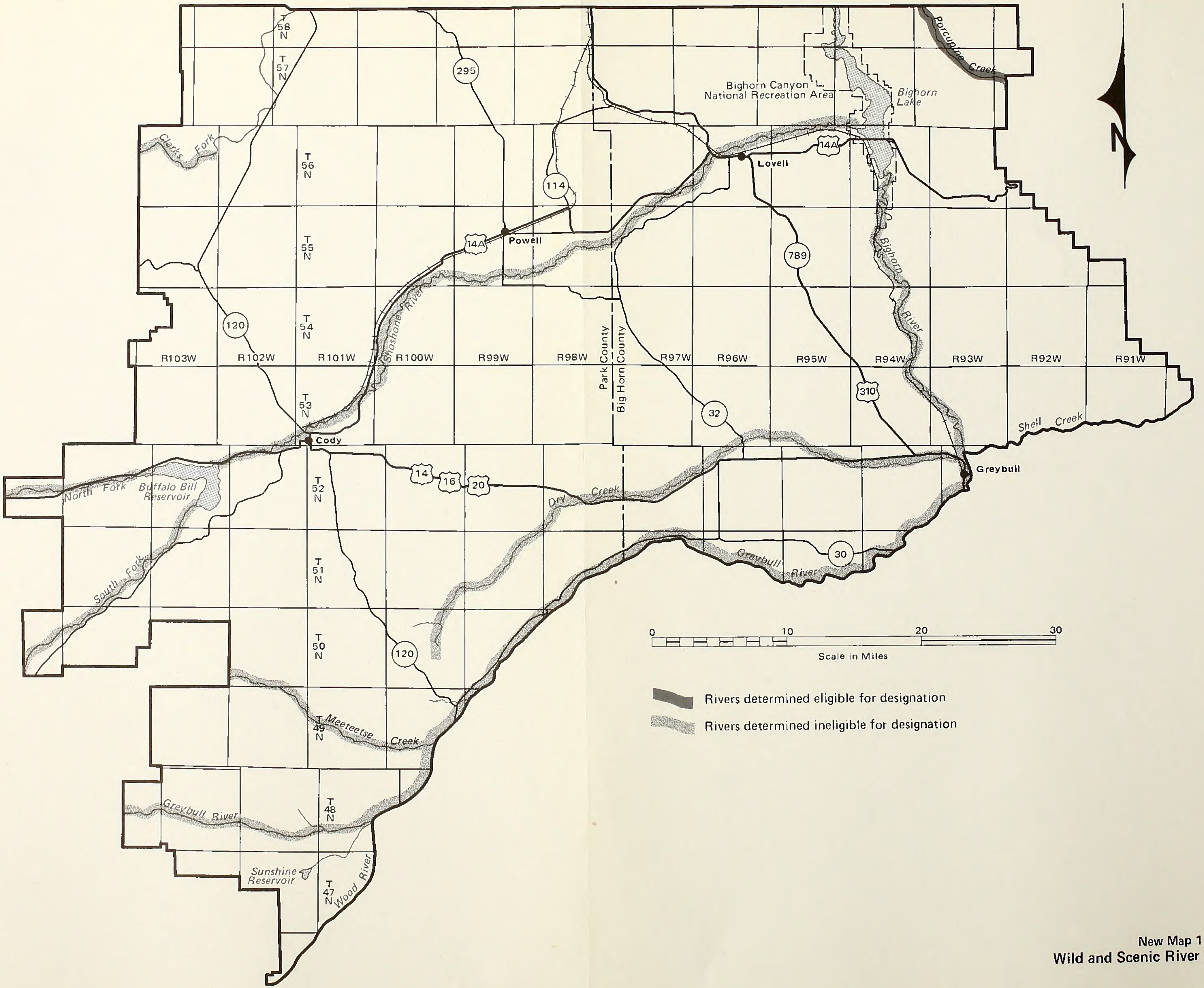
WILD AND SCENIC RIVER DESIGNATION POTENTIAL

River or Stream	Free-Flowing Natural	Length	Outstanding Remarkable Values	Conclusions
Clark's Fork of the Yellowstone River	Free flowing with numerous irrigation diversions.	Approximately 10 miles from FS boundary to State Ditch; 6 miles public land, 0.5 mile state land, and 3.5 miles private land.	The first 40 acres of public land east of the FS boundary contains a National Historic Trail, outstanding scenic values, unique wildlife habitat, and significant recreation opportunities for fishing, hunting, floating, picnicking, and camping. The remaining segment is not outstanding when compared to rivers having potential for designation, or already designated in the system.	While 40 acres at the FS boundary may qualify as eligible, this segment has already been studied for inclusion in the National Wild and Scenic River System and was removed from further consideration (USDA, FS 1979). The remaining public lands downstream do not contain outstanding values that would warrant qualification.
South Fork of the Shoshone River	Free flowing with numerous irrigation diversions.	Approximately 24 miles from USGS gauging station at Boulder Creek to Buffalo Bill Reservoir; 2 miles public land, and 22 miles private land.	The stream is not outstanding when compared to rivers having potential for designation, or already designated in the system.	The numerous diversions, lack of outstanding or remarkable values, and absence of manageable blocks of public land indicate disqualification.
North Fork of the Shoshone River	Free flowing.	Approximately 12 miles from FS boundary to Buffalo Bill Reservoir; 1 mile public land, and 11 miles private land.	The stream is not outstanding when compared to rivers having potential for designation, or already designated in the system.	The lack of outstanding or remarkable values and absence of manageable blocks of public land indicate disqualification.
Shoshone River	Free flowing with numerous irrigation diversions and dams.	Approximately 66 miles from Buffalo Bill Dam to Bighorn Lake; 20 miles of public land, the longest section of public land is 7 miles.	The stream is not outstanding when compared to rivers having potential for designation, or already designated in the system.	The numerous diversions, lack of outstanding or remarkable values, and absence of manageable blocks of public land indicate disqualification.
Meeteetse Creek	Free flowing with irrigation diversions.	Approximately 18 miles from FS boundary to the Greybull River, 1.5 miles public land, and 16.5 miles of private and state land.	The stream is not outstanding when compared to rivers having potential for designation, or already designated in the system.	The lack of outstanding or remarkable values and absence of manageable blocks of public land indicate disqualification.

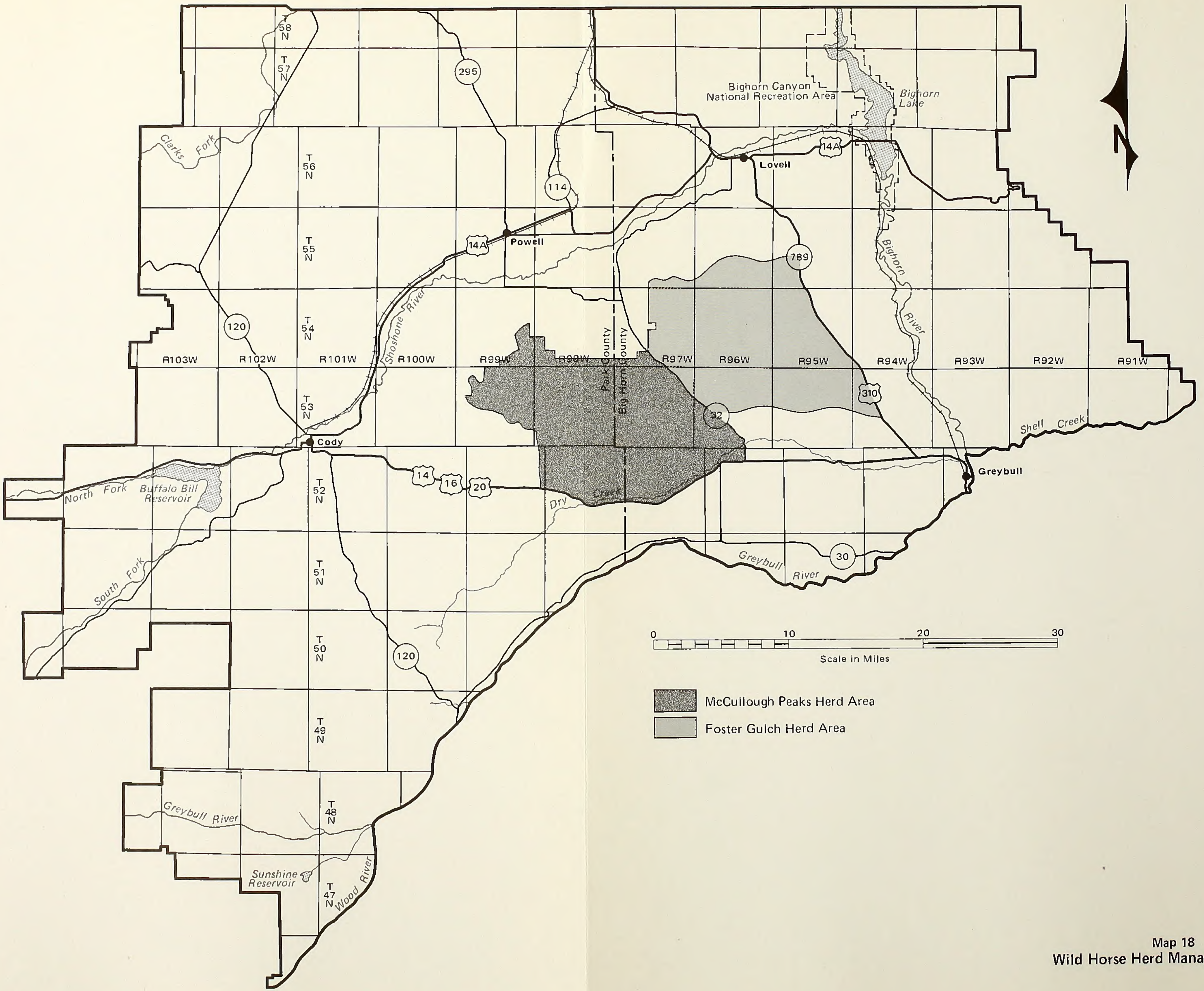
NEW TABLE 1 (Continued)

WILD AND SCENIC RIVER DESIGNATION POTENTIAL

River or Stream	Free-Flowing Natural	Length	Outstanding Remarkable Values	Conclusions
Greybull River	Free flowing with numerous irrigation diversions.	Approximately 77 miles from FS boundary to the Bighorn River; 4 miles of public land, and 73 miles of private.	The stream is not outstanding when compared to rivers having potential for designation, or already designated in the system.	The lack of outstanding or remarkable values and absence of manageable blocks of public land indicate disqualification.
Dry Creek	Large contributions of water produced from oil and gas development. Free flowing in the early spring and during storms.	Approximately 68 miles from the produced water source to the Bighorn River; 52 miles public land, and 16 miles private.	The stream is not outstanding when compared to rivers having potential for designation, or already designated in the system.	The lack of free-flowing water and the lack of outstanding or remarkable values indicate disqualification.
Bighorn River	Free flowing.	Approximately 25 miles from U. S. Highway 14 to USGS gauging station at the Bighorn National Recreation Area boundary; 13 miles of public land (longest section is 2 miles), and 12 miles of private land.	The stream is not outstanding when compared to rivers having potential for designation, or already designated in the system.	The lack of outstanding or remarkable values and absence of manageable blocks of public land indicate disqualification.
Porcupine Creek	No impoundments or other unnatural alterations of a significant nature to disqualify.	Approximately 27 miles from source to Bighorn Lake.	Porcupine Creek flows for almost its entire length through the highly scenic Devil Canyon. Fishing and other primitive recreation opportunities are excellent. There are numerous cultural resource sites along the canyon. Primitive "jeep" roads parallel the creek in the canyon for about 6 miles but have only minimal impact on natural character.	The river qualifies as a potential scenic river. Further studies should be conducted with the FS. Existing mineral segregations on 3,277 acres should be retained pending completion of studies.



New Map 1
Wild and Scenic River Study Areas



Map 18
Wild Horse Herd Management Areas

Management Actions in Proposed ACECs

Carter Mountain Proposed ACEC

Designations and Objectives

An area of about 7,819 acres would be designated an ACEC (see maps 30 and 31).

The objective for management of the Carter Mountain proposed ACEC is to protect areas of unique alpine tundra and fragile soils.

Restrictions on Surface-Disturbing Activities

The Carter Mountain proposed ACEC would be open to exploration for and development of leasable minerals.

For the protection of fragile soils and alpine tundra, surface-disturbing activities would be prohibited on slopes of more than 7%. This would apply to exploration for and development of leasable minerals and to geophysical exploration and right-of-way construction.

For the protection of crucial winter range for mule deer and bighorn sheep, seasonal restrictions would be applied to surface-disturbing activities and land uses such as exploration and development for leasable and salable minerals, geophysical exploration (except casual use), recreation, and construction activities (including development of range projects).

Cultural Resource Management

Class III cultural resource inventories would be conducted before surface-disturbing activities could be authorized. Effects on cultural resources would be mitigated or avoided.

Fire Management

The proposed ACEC would be managed as a full suppression area for wildfire, although the use of heavy equipment would be restricted to protect fragile soils and alpine tundra. Prescribed fire would be used as appropriate to accomplish management objectives described in resource activity plans such as AMPs.

Hazardous Materials and Wastes

Hazardous Materials. For activities on public lands that use hazardous materials, the BLM would monitor precautionary measures and contingency plans to guard against releases or spills into the environment.

Hazardous Wastes. Public land sites contaminated with hazardous wastes would be reported, secured, and cleaned up according to applicable federal and state regulations. Parties responsible for contamination would be liable for cleanup and resource damage costs as prescribed in federal and state regulations.

Other Hazards. If hazards should be identified, the BLM would provide warnings as appropriate and establish precautions regarding safety hazards associated with the use of any areas on public land.

Lands and Realty

Access. Existing public access opportunities through the proposed ACEC would be maintained, but additional access would not be sought.

Landownership Adjustments. About 840 acres would be identified for possible acquisition to improve management through consolidation of landownership.

Utility/Transportation Systems. The Carter Mountain proposed ACEC would be designated an avoidance area for placement of future rights-of-way. When rights-of-way would be required or the proposed ACEC could not reasonably be avoided, the effects of right-of-way construction on soils, watershed, and alpine tundra would be intensively mitigated.

Livestock Grazing Management

Livestock grazing would continue on three allotments in the proposed ACEC.

Minerals Management

The proposed ACEC would be open to locatable mineral entry. A plan of operations would be required for all locatable mineral exploration and development (except casual use), including disturbances that would cover 5 acres or less.

Off-Road Vehicle Management

ORV use in the proposed ACEC would be restricted to designated roads and trails.

Recreation Management

Recreational sites would not be developed. A few interpretive signs would be installed.

Visual Resource Management

Visual resources would be managed in accordance with Class II VRM objectives (see appendix H of the draft RMP/EIS).

Wildlife and Fish Habitat Management

During periods of severe winter weather (average of about two years out of ten), approval of the BLM would be required before snow could be removed to gain access to leases and permits in big game winter ranges. The purpose would be to minimize unnecessary human disturbance during periods that wildlife are under stress.

Chapman Bench Proposed ACEC

Designation and Objective

About 15,400 acres of Chapman Bench would be designated an ACEC (see map 32).

The objective for management of the Chapman Bench proposed ACEC is to protect an important long-billed curlew and mountain plover nesting concentration area and adjacent habitat along Sand Coulee.

Restrictions on Surface-Disturbing Activities

The proposed ACEC would be open to exploration for and development of leasable minerals.

Surface-disturbing activities would be allowed from October 1 to April 15. However, no surface-disturbing activities would be allowed if unreclaimed disturbance would exceed 5% of the total surface of the proposed ACEC at any given time. These restrictions generally would be applied to such things as leasable minerals exploration and development, geophysical exploration (except casual use), and construction activities, including right-of-way development.

Cultural Resource Management

Class III cultural resource inventories would be conducted before surface-disturbing activities could be authorized. Effects on cultural resources would be mitigated or avoided.

Fire Management

The proposed ACEC would be a limited suppression area for wildfire. Prescribed fire would be used as appropriate to accomplish management objectives described in resource activity plans such as HMPs and AMPs.

Hazardous Materials and Wastes

Hazardous Materials. For activities on public lands that use hazardous materials, the BLM would monitor precautionary measures and contingency plans to guard against releases or spills into the environment.

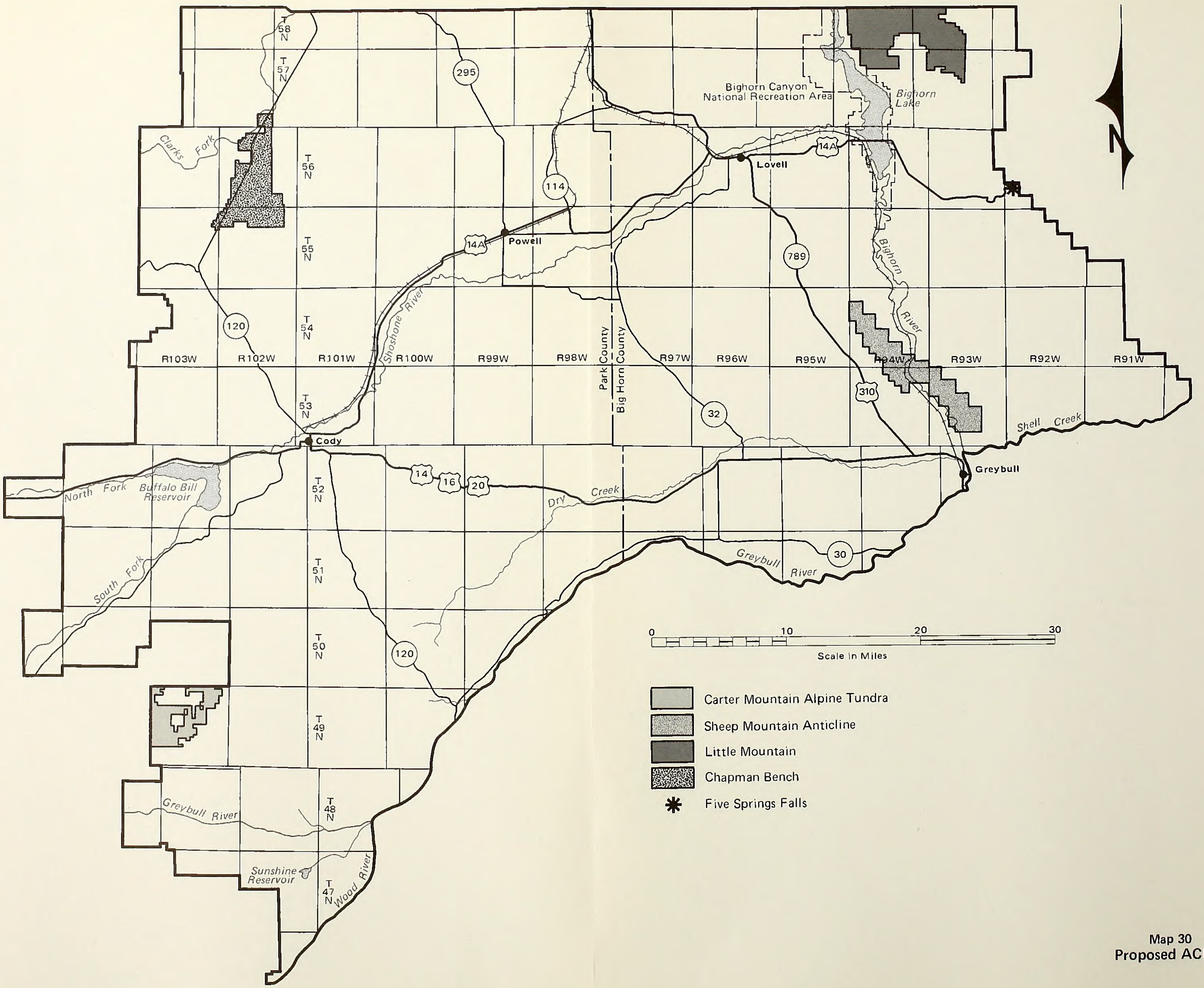
Hazardous Wastes. Public land sites contaminated with hazardous wastes would be reported, secured, and cleaned up according to applicable federal and state regulations. Parties responsible for contamination would be liable for cleanup and resource damage costs as prescribed in federal and state regulations.

Other Hazards. If hazards should be identified, the BLM would provide warnings as appropriate and establish precautions regarding safety hazards associated with the use of any areas on public land.

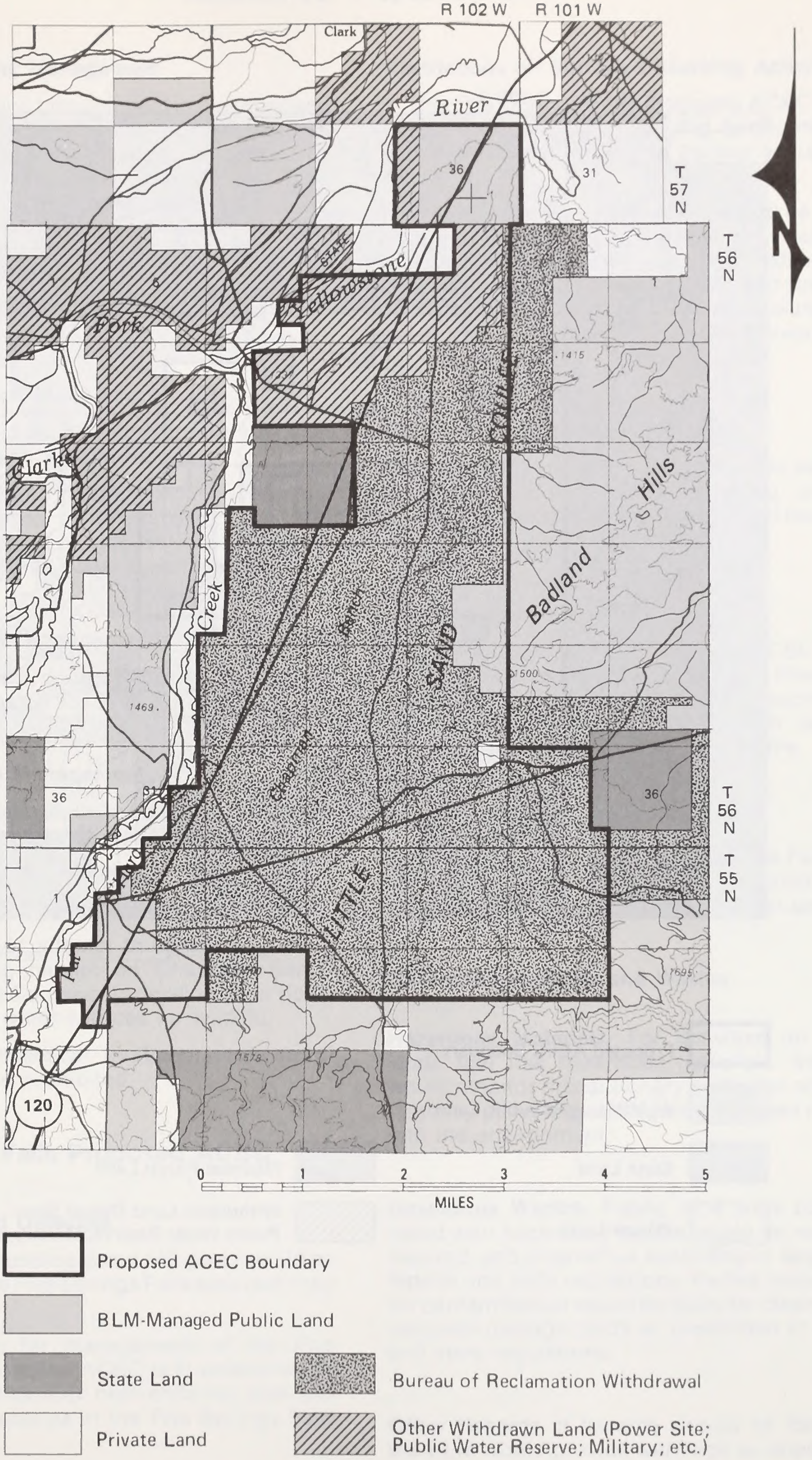
Lands and Realty

Landownership Adjustments. No lands in the proposed ACEC would be identified for acquisition.

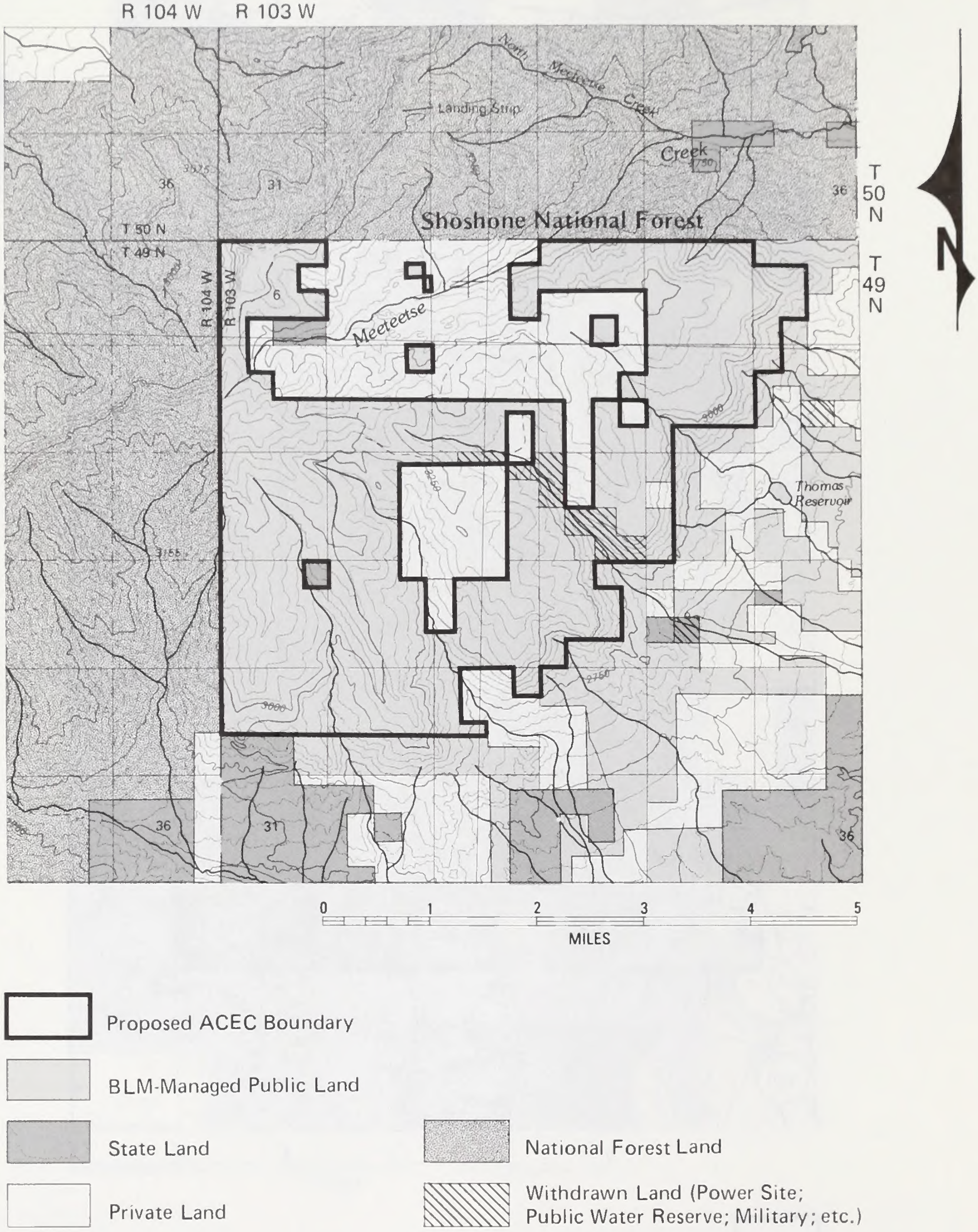
Utility/Transportation Systems. The proposed ACEC would be designated an avoidance area for placement of aboveground power lines and road rights-of-way. When rights-of-way would be required or the proposed ACEC could not reasonably be avoided, the effects of right-of-way construction would be intensively mitigated.



Map 30
Proposed ACECs



Map 32
Chapman Bench Proposed ACEC



Map 31
Carter Mountain Proposed ACEC

Livestock Grazing Management

Livestock grazing management in the proposed ACEC would be consistent with ACEC objectives. Before the nesting season for long-billed curlews and mountain plovers, livestock grazing would be managed to reduce the height of vegetation. Livestock grazing would be prohibited during the nesting season. Habitat requirements for curlews and plovers would be incorporated into AMPs and other activity plans that would be developed for the area.

Minerals Management

The area would be closed to future locatable mineral exploration and development.

For existing mining claims, a plan of operations would be required for all mineral exploration and development (except casual use), including disturbances that would cover 5 acres or less.

Off-Road Vehicle Management

ORV use in the proposed ACEC would be restricted to designated roads and trails.

Visual Resource Management

Visual resources would be managed in accordance with Class II and III VRM objectives.

Wildlife and Fish Habitat Management

The BLM would attempt to establish suitable riparian foraging habitat on Chapman Bench along Little Sand Coulee or to develop other riparian habitat and water sources for wildlife.

The use of chemical treatments to control insects would be prohibited.

Five Springs Falls Proposed ACEC

Designation and Objective

An ACEC comprising about 160 acres would be designated in the Five Springs Falls area (see map 33).

The objective for management of the Five Springs Falls proposed ACEC is to protect existing populations of four near-endemic rare and sensitive plant species in the Five Springs Falls area.

Restrictions on Surface-Disturbing Activities

The Five Springs Falls proposed ACEC would be open to exploration for and development of leasable minerals with a "no surface occupancy" restriction.

The 160-acre proposed ACEC would be closed to surface-disturbing activities such as geophysical exploration (except casual use), salable minerals exploration and development, and construction activities (except those related to development of recreation or interpretation of rare plants).

Cultural Resource Management

Class III cultural resource inventories would be conducted before surface-disturbing activities could be authorized. Effects on cultural resources would be mitigated or avoided.

Fire Management

The Five Springs Falls proposed ACEC would be a full suppression area for wildfire. Prescribed fire would be used as appropriate to accomplish management objectives described in resource activity plans such as HMPs and AMPs.

Forest Management

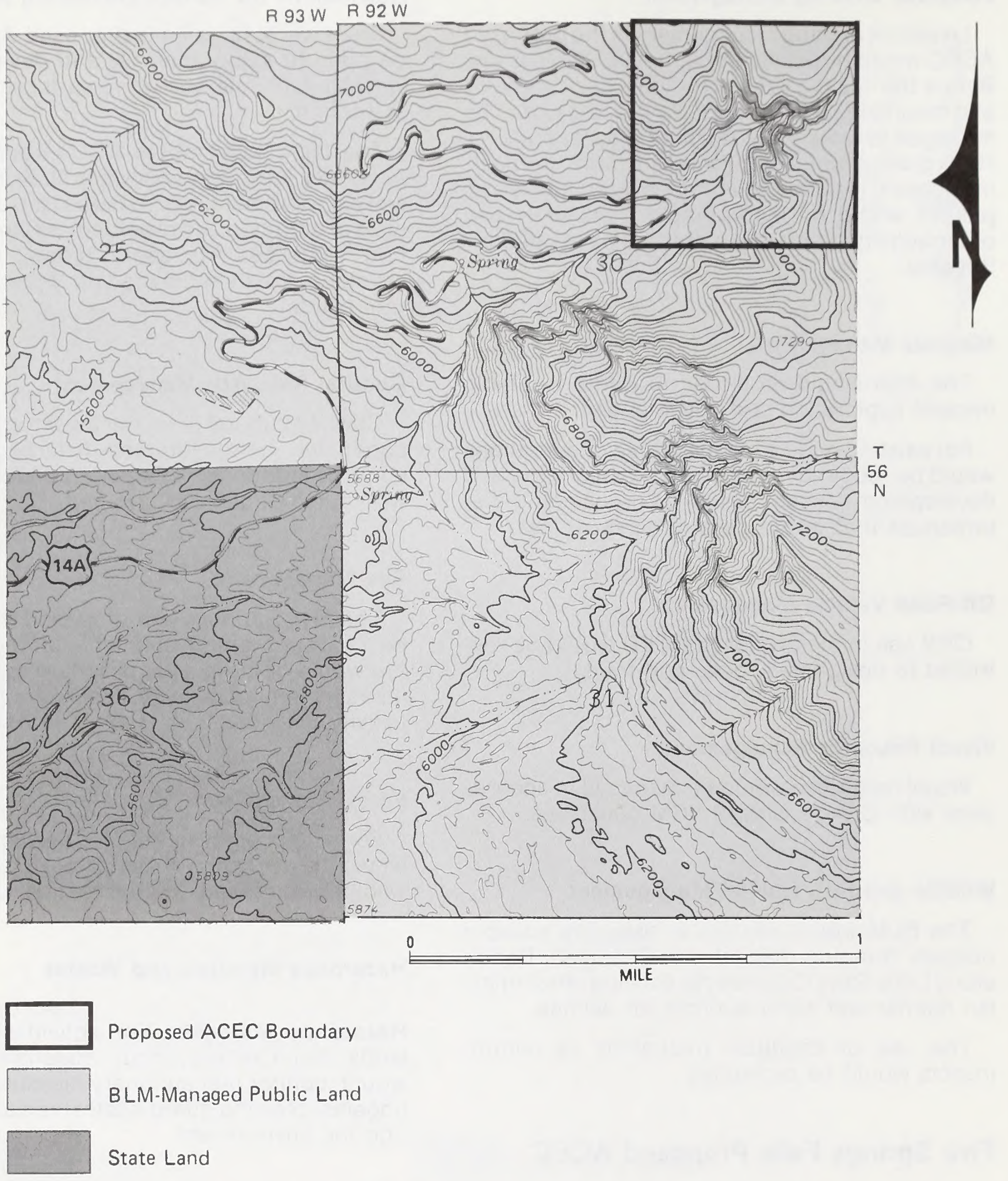
Forest resources in the Five Springs Falls area would be managed to emphasize native plant, wildlife, watershed, and recreation values.

Hazardous Materials and Wastes

Hazardous Materials. For activities on public lands that use hazardous materials, the BLM would monitor precautionary measures and contingency plans to guard against releases or spills into the environment.

Hazardous Wastes. Public land sites contaminated with hazardous wastes would be reported, secured, and cleaned up according to applicable federal and state regulations. Parties responsible for contamination would be liable for cleanup and resource damage costs as prescribed in federal and state regulations.

Other Hazards. If hazards should be identified, the BLM would provide warnings as appropriate



Map 33
Five Springs Falls Proposed ACEC

and establish precautions regarding safety hazards associated with the use of any areas on public land.

Lands and Realty

Access. Existing access would be retained in the Five Springs Falls area. Additional access would not be acquired.

Utility/Transportation Systems. The proposed ACEC would be designated an avoidance area for placement of future rights-of-way. When rights-of-way would be required or the proposed ACEC could not reasonably be avoided, the effects of right-of-way construction would be intensively mitigated.

Livestock Grazing Management

Livestock grazing would continue to occur occasionally in the area, although grazing would be excluded from the Five Springs Falls Campground.

Minerals Management

The proposed ACEC would be closed to future locatable mineral exploration and development. For existing mining claims, a plan of operations would be required for all locatable mineral exploration and development (except casual use), including disturbances that would cover 5 acres or less.

Off-Road Vehicle Management

The proposed ACEC would be closed to ORV use.

Recreation Management

Recreational facilities at the Five Springs Falls Campground would be maintained. Interpretive signs would be used in the proposed ACEC to explain the importance of protecting rare plants and their habitat.

To protect rare plants, hiking would be limited to existing trails, and except for the purposes of approved monitoring and research, no climbing would be allowed on the cliff that forms Five Springs Falls.

Visual Resource Management

Visual resources in the ACEC would be managed in accordance with Class I VRM objectives.

Wildlife and Fish Habitat Management

Wildlife habitat management in the Five Springs Falls area would be consistent with objectives of the West Slope HMP. Protection of crucial winter range for mule deer would be emphasized.

Little Mountain Proposed ACEC

Designation and Objective

An ACEC comprising about 20,510 acres would be designated in the Little Mountain area (see map 34).

The objective for management of the Little Mountain proposed ACEC is to protect and manage important cave resources and important cultural and paleontological values.

Restrictions on Surface-Disturbing Activities

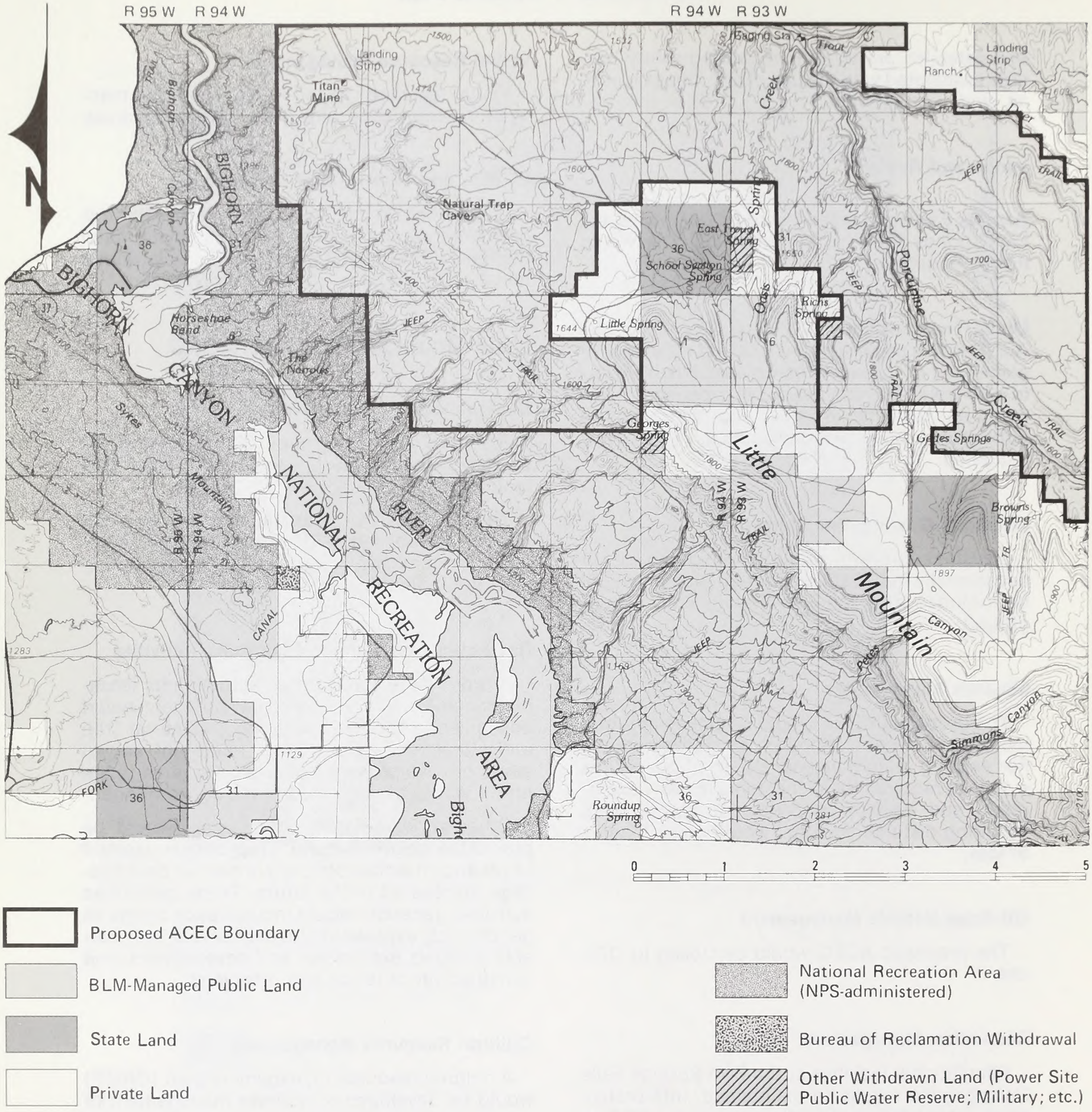
A "no surface occupancy" restriction for leasable minerals exploration and development would be applied to about 528 acres above Natural Trap and Horsethief caves. Other important known caves or cave passages or any discovered in the future would be protected in the same manner.

Other surface-disturbing activities would be prohibited above Natural Trap and Horsethief caves and on lands above any important cave passage discovered in the future. These prohibited activities generally would include such things as geophysical exploration (except casual use), salable minerals exploration and development, and construction of roads and reservoirs.

Cultural Resource Management

A cultural resource management plan (CRMP) would be developed to address management of significant cultural and paleontological resources in the proposed ACEC.

Class III cultural resource inventories would be conducted before surface-disturbing activities could be authorized and before use of prescribed fire. Effects on cultural resources would be mitigated or avoided.



Map 34
Little Mountain Proposed ACEC

Fire Management

The proposed ACEC would be identified as a full suppression area for wildfire, but heavy equipment would be prohibited over Horsethief, Natural Trap, and other important caves.

Hazardous Materials and Wastes

Hazardous Materials. For activities on public lands that use hazardous materials, the BLM would monitor precautionary measures and contingency plans to guard against releases or spills into the environment.

Hazardous Wastes. Public land sites contaminated with hazardous wastes would be reported, secured, and cleaned up according to applicable federal and state regulations. Parties responsible for contamination would be liable for cleanup and resource damage costs as prescribed in federal and state regulations. The BLM would encourage and cooperate with the Wyoming DEQ to clean up and rehabilitate abandoned uranium mines in the proposed ACEC.

Other Hazards. The BLM would provide warnings as appropriate and establish precautions regarding safety hazards associated with the use of any areas on public land. For example, BLM would erect temporary fencing and signs at abandoned mines in the proposed ACEC warning of the public health hazards posed by radioactivity and uncovered mine entrances and adits.

Lands and Realty—Utility/Transportation Systems

The Little Mountain proposed ACEC would be designated an avoidance area for placement of future rights-of-way. When rights-of-way would be required or the proposed ACEC could not reasonably be avoided, the effects of right-of-way construction would be intensively mitigated.

Livestock Grazing Management

Livestock grazing would continue on three grazing allotments that are inside the proposed ACEC.

Minerals Management

About 528 acres over Horsethief and Natural Trap caves would remain closed to locatable mineral exploration and development. In addition, closures would be established for lands above other significant caves and above caves and cave passages that may be discovered in the future.

For both existing and future mining claims in the entire proposed ACEC, a plan of operations would be required for all locatable mineral exploration and development (except casual use), including disturbances that would cover 5 acres or less.

Off-Road Vehicle Management

ORV use in the proposed ACEC would be restricted to designated roads and trails.

Recreation Management

Facilities for cavers would be constructed near Horsethief cave. Visitor services and patrols would be increased, and interpretive and directional signs would be posted.

The issuance of cave permits would be limited to ensure a "wild" experience for cave users.

Visual Resource Management

Visual resources would be managed in accordance with Class II and Class III VRM objectives according to the classifications shown on map 16.

Wildlife and Fish Habitat Management

Wildlife habitat management would be consistent with the objectives of the West Slope HMP. Protection of crucial winter range for mule deer would be emphasized.

Sheep Mountain Anticline Proposed ACEC

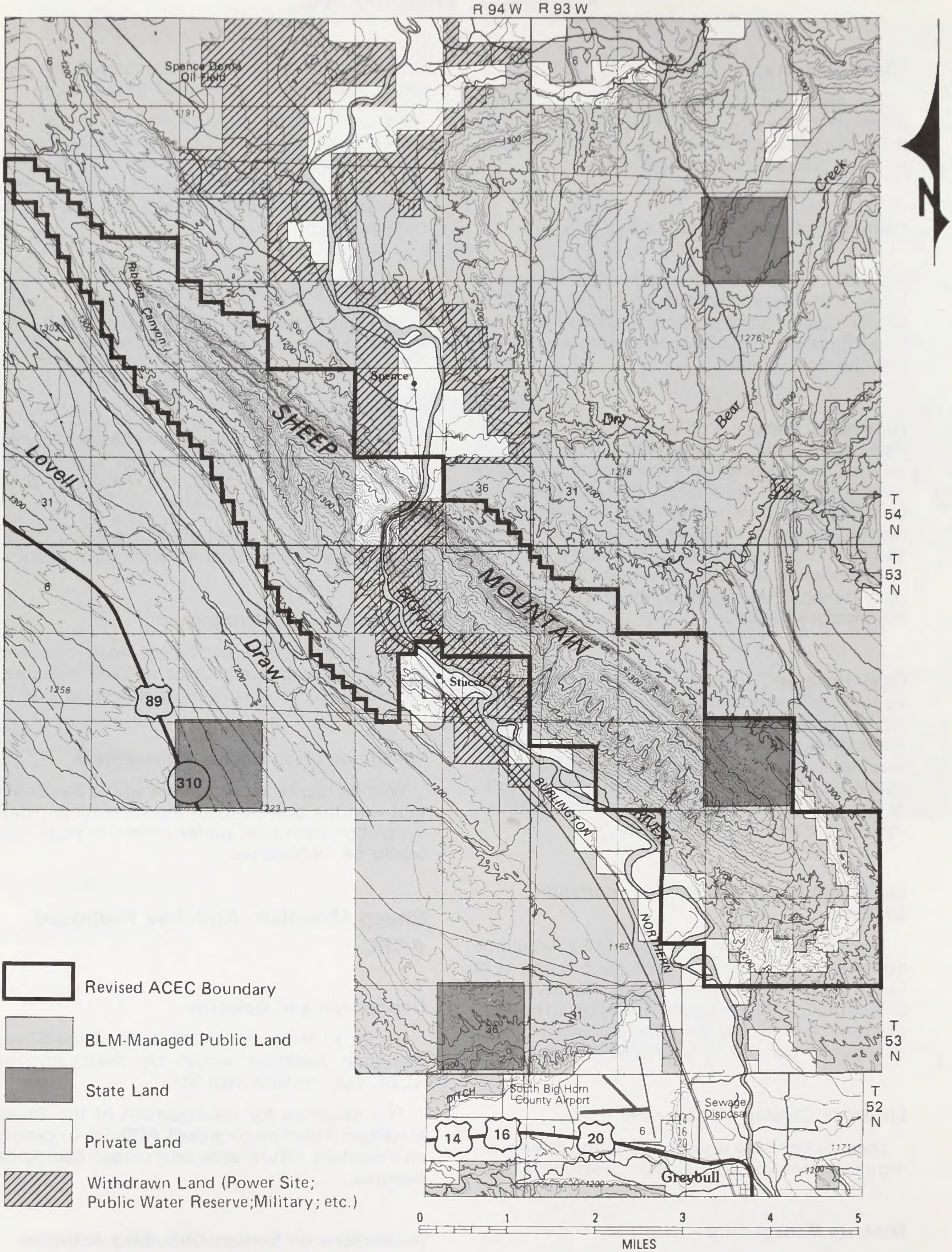
Designation and Objective

About 12,285 acres in the area of the Sheep Mountain Anticline would be designated an ACEC (see revised map 35).

The objective for management of the Sheep Mountain Anticline proposed ACEC is to protect an important natural area with unique geological features.

Restrictions on Surface-Disturbing Activities

All lands in the Sheep Mountain Anticline area would be open to exploration for and development of leasable minerals; however, a "no surface



Revised Map 35
Sheep Mountain Anticline
Proposed ACEC—Location

occupancy" restriction would be applied on Bighorn River HMP/RAMP tracts (about 2,500 acres) and above important caves and cave passages.

Bighorn River HMP/RAMP tracts in the proposed ACEC and lands above caves would be closed to other surface-disturbing activities such as geophysical exploration (except casual use), salable minerals exploration and development, and construction activities (except those related to development of recreation or wildlife habitat). Elsewhere in the proposed ACEC, surface-disturbing activities generally would be allowed.

Cultural Resource Management

Class III cultural resource inventories would be conducted before surface-disturbing activities could be authorized. Effects on cultural resources would be mitigated or avoided.

Fire Management

The proposed ACEC would be identified as a limited suppression area for wildfire.

Prescribed fire would be used as appropriate to accomplish management objectives described in resource activity plans such as HMPs and AMPs.

Hazardous Materials and Wastes

Hazardous Materials. For activities on public lands that use hazardous materials, the BLM would monitor precautionary measures and contingency plans to guard against releases or spills into the environment.

Hazardous Wastes. Public land sites contaminated with hazardous wastes would be reported, secured, and cleaned up according to applicable federal and state regulations. Parties responsible for contamination would be liable for cleanup and resource damage costs as prescribed in federal and state regulations.

Other Hazards. If hazards should be identified, the BLM would provide warnings as appropriate and establish precautions regarding safety hazards associated with the use of any areas on public land.

Lands and Realty

Landownership Adjustments. No lands in the Sheep Mountain Anticline area would be identified for acquisition.

Utility/Transportation Systems. The Bighorn River HMP/RAMP tracts in the Sheep Mountain Anticline proposed ACEC would be designated an avoidance area for placement of new rights-of-way. When rights-of-way would be required or the tracts could not reasonably be avoided, the effects of right-of-way construction would be intensively mitigated.

Livestock Grazing Management

Livestock grazing would continue on four allotments in the proposed ACEC.

Minerals Management

The Bighorn River HMP/RAMP tracts in the Sheep Mountain Anticline proposed ACEC would be closed to further locatable mineral entry.

Lands within the proposed ACEC would be closed to locatable mineral exploration and development subject to valid existing rights.

A plan of operations would be required for locatable mineral exploration and development (except casual use), including disturbances that would cover 5 acres or less. (See revised map 36 showing mineral claims in the proposed ACEC.)

Off-Road Vehicle Management

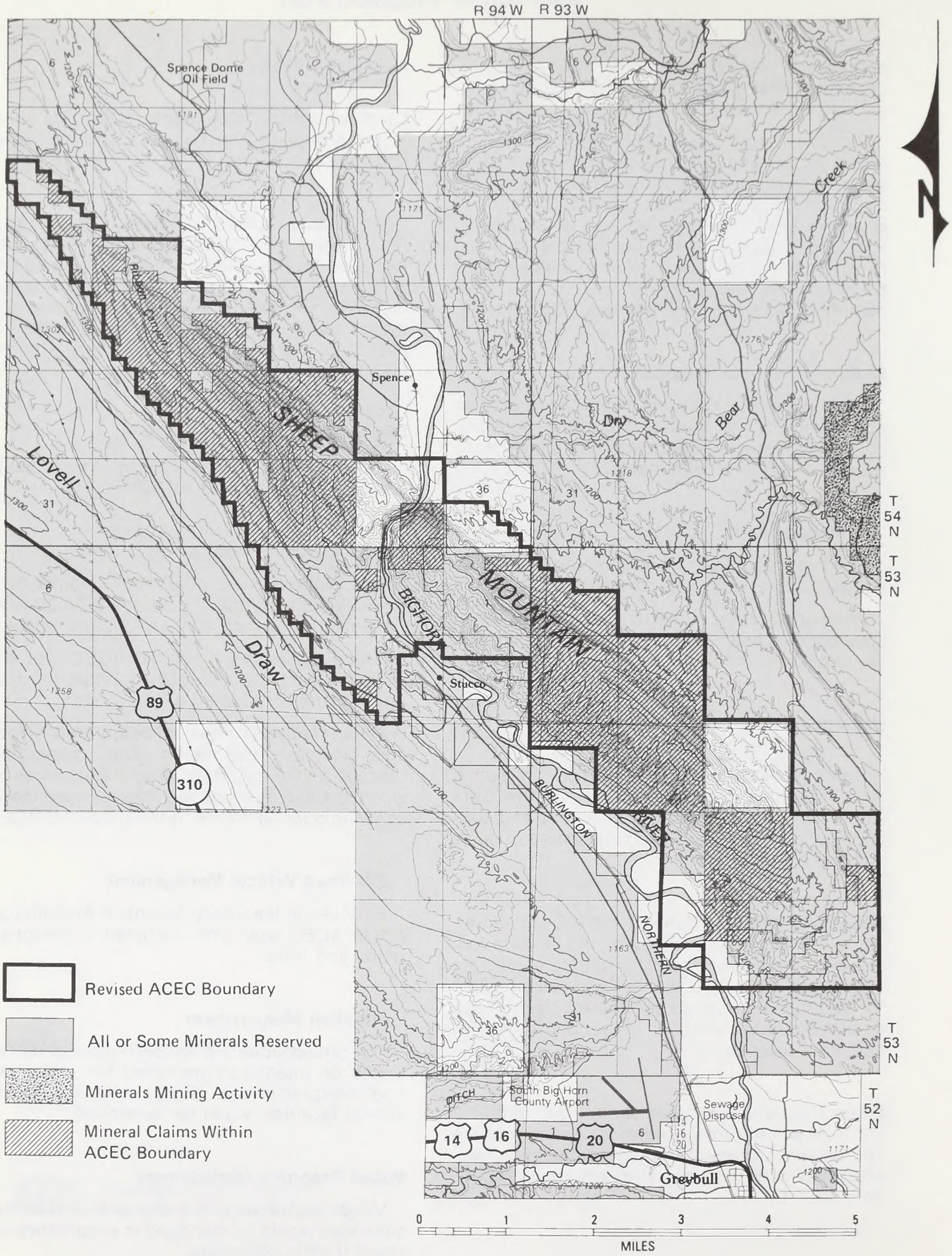
ORV use in the Sheep Mountain Anticline proposed ACEC would be restricted to designated roads and trails.

Recreation Management

The Sheep Mountain Anticline proposed ACEC would be intensively managed for recreational and interpretive use. Signs, roads, and recreational facilities would be developed.

Visual Resource Management

Visual resources in the Sheep Mountain Anticline area would be managed in accordance with Class II VRM objectives.



Revised Map 36
Sheep Mountain Anticline
Proposed ACEC—Mineral Claims

Wildlife and Fish Habitat Management

Wildlife habitat management in the Sheep Mountain Anticline area would be consistent with existing fish and wildlife HMPs.

ADDITIONS AND CORRECTIONS FOR CHAPTER 2

Revised Maps

As a result of public comments and further review by BLM specialists, modifications have been made in some of the maps originally printed in chapter 2 of the draft RMP/EIS but not used as part of the proposed plan. In some cases, the modifications dictated the reprinting of the map. The map numbers have not been changed from those used in the draft RMP/EIS. The revised maps 7, 8, and 12 are reprinted on the following pages.

Other Additions and Corrections

Other changes to chapter 2 of the draft RMP/EIS are shown in the following list.

ADDITIONS AND CORRECTIONS FOR CHAPTER 2

Page numbers refer to pages in the draft RMP/EIS. A partial paragraph at the top of a column counts as paragraph 1. The changed or added material in the "Should Read" column is in bold type.

Draft Page	Column	Paragraph	Line(s)	Should Read
8	1	4	3	However, the **7,700 acres of forestland capable of sustaining forest production on Rattlesnake Mountain** need to be harvested . . .
9	2	3	7	. . .0.25 mile **of** the Wiley. . .
10	2	3	3, 4	. . . prohibited **in Class II visual** resource
10	2	4	7	. . . Shoshone **River and Clarks** Fork of . . .
15	2	Following 1		A subheading, **Grouse** should appear between paragraphs 1 and 2.
15	3	Following 1		A subheading, **Grouse** should appear between paragraphs 1 and 2.
15	4	Following 1		A subheading, **Grouse** should appear between paragraphs 1 and 2.
15	5	Following 1		A subheading, **Grouse** should appear between paragraphs 1 and 2.
19	1	3	1	Delete **Emergency site**
19	2	3	1,2	**Emergency site** stabilization and long-term
19	5	3	1	**Same as Alternative A**
21	2	Before 1		A heading, **Management Actions:** should appear before paragraph 1.
21	3	Before 1		A heading, **Management Actions:** should appear before paragraph 1.
21	4	Before 1		A heading, **Management Actions:** should appear before paragraph 1.
21	5	Before 1		A heading, **Management Actions:** should appear before paragraph 1.
24	1	1	1	**Hazardous Materials and Waste** should appear as a resource program heading.
24	1	5	1	**Lands and Realty Management** should appear as a resource program heading.
26	1	4	1	Delete **The Franklin Floyd exchange**
26	2	4	1	"Same as Alternative A" should be **The Franklin Floyd exchange**

ADDITIONS AND CORRECTIONS FOR CHAPTER 2 (Continued)

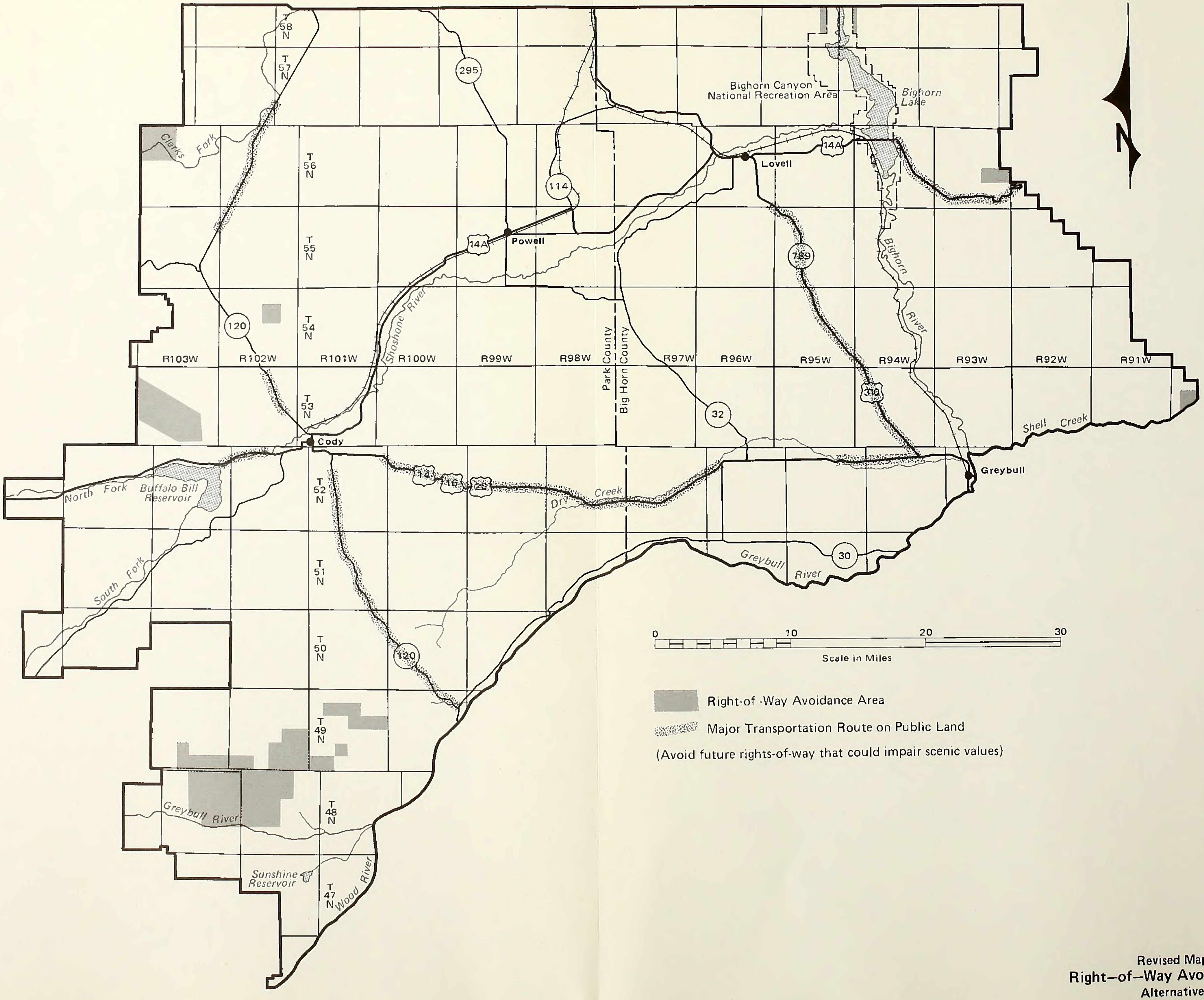
Draft Page	Column	Paragraph	Line(s)	Should Read
26	5	4	1	**Same as Alternative A**
28	5	3	1	Same as Alternative C **(see map 10)**
29	2	Following 2, insert new paragraph		**Peregrine falcon recovery habitat areas would be designated avoidance areas for the placement of new roads and aboveground power lines.**
29	3	Following 2, insert new paragraph		**Peregrine falcon recovery habitat areas would not be designated avoidance areas.**
29	4	Following 2, insert new paragraph		**Same as Alterative A**
29	5	Following 2, insert new paragraph		**Same as Alternative A**
30	3	1	1	About **202,000** acres of . . .
30	3	1	7	**27,300** acres of lands. . .
30	2	2	1	About **500,000** acres of . . .
30	2	2	6	about **4,400** acres of . . .
30	3	2	1	About **500,000** acres of . . .
30	3	2	5	about **4,240** acres of . . .
32	2	4	Replace paragraph with	**Prairie dog town expansion would be controlled only in two allotments on about 225 acres.**
40	4	4	4	Delete **Class I and**
40	5	4	4	Delete **Class I and**
41	1	5	1	**Recreation Management** should appear as the program heading.
48	2	1	2, 3	. . . within 2.5 miles of **active bald eagle nests** in the . . .
48	5	2	1	**Same as Alternative A**
49	2	2	4	. . .through restrictions **on** surface-disturbing activities and. . .
72	Map 12			Delete last line "ORV use limited to designated roads and trails." Add statement **ORV use in the remainder of the Cody Resource area is limited to existing roads and trails** Add to "ORV seasonal closures" the following. . . **and use limited to existing roads and trails**
76	Map 14			Delete paragraph: **See Table 2. . . this map.)**
117	3	1	3, 4	area for wildfire **east of Wyoming Highway 120 and a full suppression area west of Wyoming 120.** Prescribed fire . . .
130	2	4	4	Begin new paragraph with the sentence that starts **Prescribed fire would be. . .**

ADDITIONS AND CORRECTIONS FOR CHAPTER 2 (Continued)

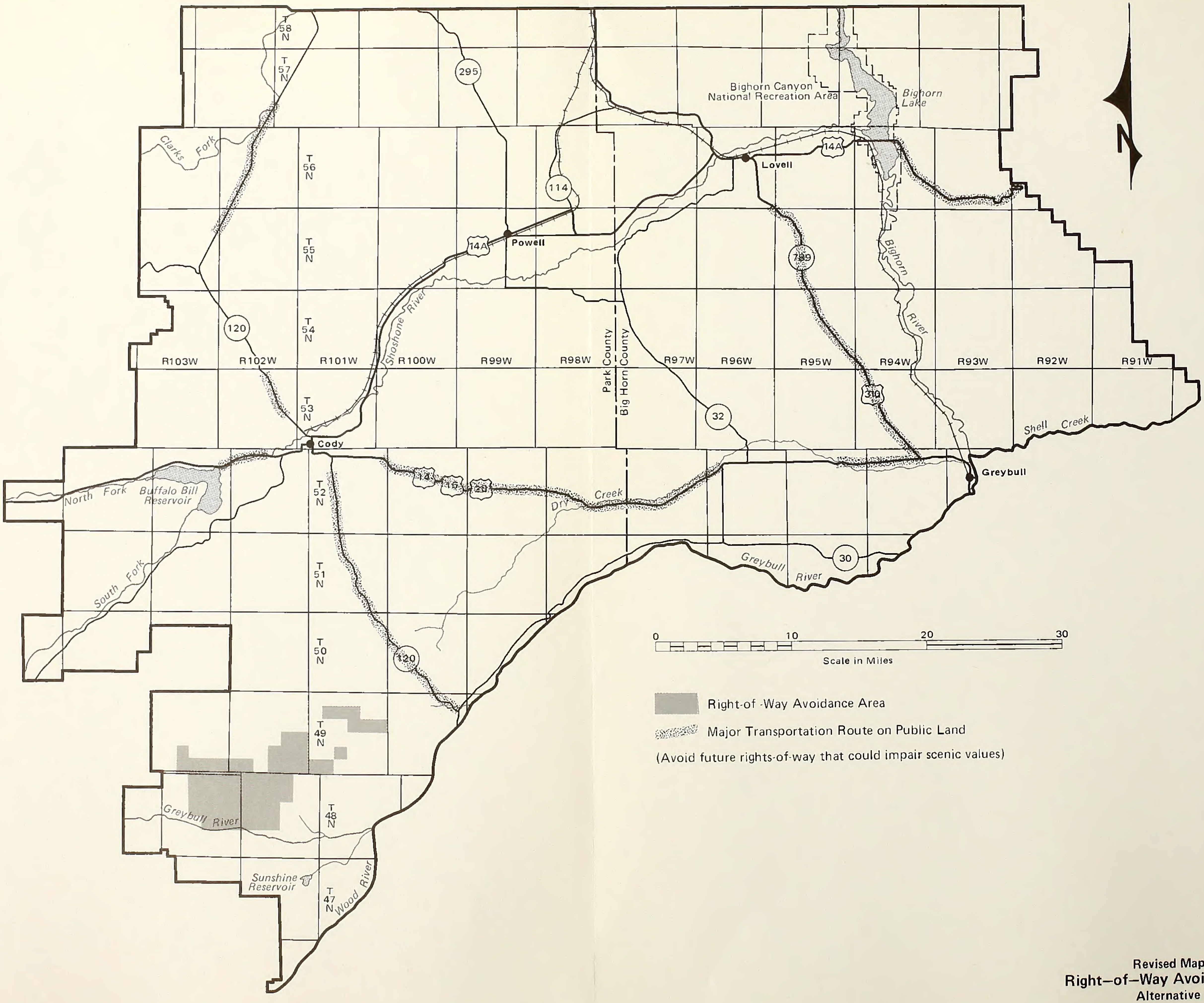
Draft Page	Column	Paragraph	Line(s)	Should Read
130	3	Following 4 insert new paragraph		**Same as Alternative A**
130	4	Following 4 insert new paragraph		**Same as Alternative A**
130	5	Following 4 insert new paragraph		**Same as Alternative A**
145	4	2	1	To **protect** grouse habitat . . .
147	5	2	4	. . . term **and** about 491,000 tons in. . .
148	2	2	4	. . . the planning area. **About 65% of this erosion would be attributable to accelerated erosion resulting primarily from livestock grazing, recreation, ORV use, and other surface-disturbing activities.**
148	3	2	4	. . . about 52,600 tons **(13%)** per year . . .
148	3	2	9	. . . by about 60,610 tons **(15%)**.
148	4	2	4	. . . by about 72,410 tons **(18%)** per year . . .
148	4	2	9	. . . by about 81,750 tons **(20%)**.
148	5	2	4	. . . by about 11,000 tons **(3%)** per year . . .
148	5	2	9	. . . by about 53,000 tons **(13%)**.
149	4	Replace 4 with		**Black-footed ferret recovery habitat would be reduced by about 30 acre by bentonite exploration and development. Oil and gas exploration and development would not affect the habitat.**
149	2	Following 4 insert new paragraph		**About 2,500 acres of recovery habitat for black-footed ferrets would be surveyed for ferrets or improved for ferret recovery.**
149	3	Following 4 insert new paragraph		**Same as Alternative A**
149	4	Following 4 insert new paragraph		**Same as Alternative A**
149	5	Following 4 insert new paragraph		**Same as Alternative A**
150	2	1	4 to 7	This could decrease bald eagle production **at one bald eagle nest** in 10 to 25 years.
150	3	Replace 2 with		**Three nesting pairs of peregrine falcons would be expected to occupy portions of the planning area. However, new nesting by three other pairs probably would not occur because of human disturbances associated with oil and gas exploration and development and rights-of-way construction.**

ADDITIONS AND CORRECTIONS FOR CHAPTER 2 (Continued)

Draft Page	Column	Paragraph	Line(s)	Should Read
150	2	Following 3 insert new paragraph		**Human disturbances from minerals exploration and development would eliminate raptor production at 12 to 23 nest sites at least temporarily during the period of development**
150	3	Following 3 insert new paragraph		**Same as Alternative A except that increased vegetative treatments for livestock management would cause a further decline in raptor production by 5% to 10%.**
150	4	Following 3 insert new paragraph		**Bentonite mining activity would eliminate raptor production at one nest site. Raptor production also would be affected by oil and gas exploration and development and vegetative treatments; however, these would be less severe than the impacts described in Alternatives A and B.**
150	5	Following 3 insert new paragraph		**Same as Alternative C**
155	3	3	1	Soil losses would **continue at present levels** because of management actions to enhance long-billed curlew and. . .
159	2	1	6	. . .also could cause unintentional **damage** of cultural resources.



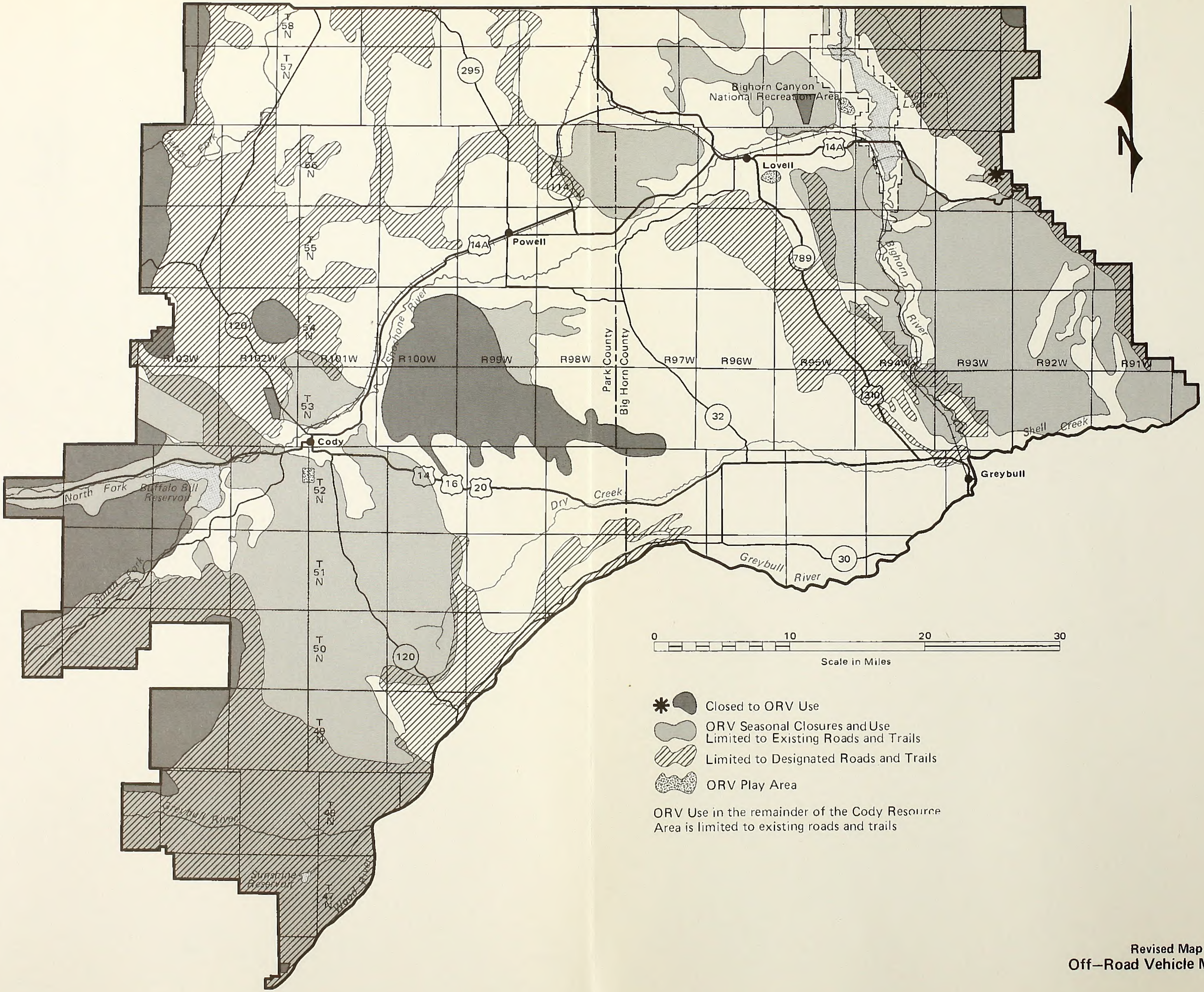
Revised Map 7
Right–of–Way Avoidance Areas
Alternative A



Revised Map 8

Right–of–Way Avoidance Areas

Alternative B



Revised Map 12
Off–Road Vehicle Management

3 AFFECTED ENVIRONMENT

Since the Affected Environment in the planning area is unchanged, the text of chapter 3 has not been repeated in this proposed RMP/final EIS. A list of additions and corrections for the text of the draft follows.

ADDITIONS AND CORRECTIONS FOR CHAPTER 3

Page numbers refer to pages in the draft RMP/EIS. A partial paragraph at the top of a column counts as paragraph 1. The changed or added material in the "Should Read" column is in bold type.

Draft Page	Column	Paragraph	Line(s)	Should Read
169	1, 2		Last and first	. . . wells had been **drilled. This figure** includes water wells . . .
170	2	3	1,2	Uranium deposits **in** the Mississippian age . . .
170	2	3	End paragraph with	**Uranium has been found in other formations in the planning area but no production has occurred and none is expected in the next ten years.**
177	2	5	8 to 10	Available recreational opportunities **include rapelling,** ascending, . . .
178	1	5	12	. . . of approximately **80° F. This uniqueness . . .**
191	Table 12			**Footnote 2 should read: SCS condition classes were not determined on 79% of this acreage.**
198	1	5	1	Salinity **may impair** the use of water . . .
198	2	4	2,3	. . . planning **area. Grazing by livestock and wildlife** causes 73% . . .
198	2	6	5 to 8	. . . water use **in some wells near Frannie is restricted because of dissolved radium in the Madison Limestone.**
202	Table 16			The revised version of this table is included in the pages following this list.
207	1	5	7	. . .available in **April or May 1989.**
207	1	3	End paragraph with	**Other wetlands are largely dependent on oil field water releases. Two that provide excellent waterfowl habitat are Arnoldus or Byron Lake and the Byron Swamps, near the Garland and Byron oil fields, respectively.**
207	2	5	3, 4	. . . streams: **26.8** miles in class 1, **10** miles in class 2, **48** miles in class 3, and . . .
208	1	5	4	. . . confirmed in the black-footed ferret **essential** habitat area. . . .
209	1	1	1	. . . River east of **Lovell** are the best potential breeding habitat in the planning area.

ADDITIONS AND CORRECTIONS FOR CHAPTER 3 (Continued)

Draft Page	Column	Paragraph	Line(s)	Should Read
209	2	3	1	The Yellowtail **Wildlife Habitat Management Unit** is one of the two most . . .
209	2	3	12	. . .area rather than as **a** production area. Although . . .
211	1	1	Replace last sentence with	**There also appears to be a low level white-tailed deer population increase in the planning area, and their range appears to be expanding in the Heart Mountain area.**
214	2	5	7 to 9	The BLM's present grazing fee is **$1.54** per AUM. The average annual return to BLM from this fee is about **$122,134.**

TABLE 16

USES AND CLASSIFICATIONS OF SELECTED STREAMS IN THE PLANNING AREA

Stream or Impoundment	Uses[1]	DEQ Classification[2]	WGFD Classification[3]
Bighorn River Subbasin			
Bighorn River (Greybull to Kane)	I, W&L, SBC, CWF	II	3
Shell Creek (below forest boundary)	PWS, I, CWF, W&L	II	3
Bear Creek	W&L	IV	5
Crystal Creek	W&L, CWF	II	3
Crooked Creek	W&L, CWF, SA	II	3
Porcupine Creek	SBC, W&L, CWF, SA	II	3
Trout Creek	SBC, W&L, CWF, SA	II	3
Greybull River and tributaries			
Forest boundary to Wood River	I, W&L, CWF, SBC, SA	II	3
Wood River to Meeteetse Creek	I, W&L, CWF, SBC, SA	II	4
Meeteetse Creek to Bench and Farmers Canal diversions	I, W&L, CWF, SBC	II	4
Canal diversion to mouth	I, W&L	II	4
Dry Creek			
above Wyoming 120	W&L, I	II	4
between Wyoming 120 and U.S. 14	W&L, I	IV	4
from U.S. 14 to mouth	W&L, I	II	4
Oregon Coulee	W&L	IV	5
South Fork Dry Creek	W&L	IV	5
Shoshone River and tributaries			
North Fork, forest boundary to Buffalo Bill	SBC, I, CWF, W&L, SBC, SA	II	2
South Fork, forest boundary to Buffalo Bill	PWS, I, CWF, W&L, SBC, SA	II	3
Buffalo Bill to Willwood Dam	I, CWF, SA, SBC, W&L	II	1
Willwood Dam to Yellowtail	PWS, I, CWF, SBC, W&L	II	3
Sulfur Creek	I, W&L	II	4
Idaho Creek	W&L	IV	5
Mantua Draw	W&L	IV	5
Bitter Creek	W&L, I, CWF	II	3
Whistle Creek	W&L	II	4
Sage Creek (North)	I, W&L	II	3
Polecat Creek	W&L	II	3
Loch Katrine	W&L	IV	—
Clarks Fork of Yellowstone Subbasin			
Silvertip Gulch	W&L	IV	5
Sunlight Creek	W&L, CWF	II	2
Big Sand Coulee	I, W&L	IV	5
Impoundments in Big Sand Coulee	CWF, SBC, W&L	II	—

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[1] CWF = cold water fishery; I = irrigation; IWS = industrial water; PBC = primary body contact; PWS public water supply; SA = stream aesthetics; SBC = secondary body contact; W&L = wildlife & livestock watering; WWF = warm water fishery

[2] Class I = surface waters that are to be maintained at their existing quality and in which no further water quality degradation by point source discharges will be allowed. Class II = surface waters, other than those classified as class I, that the WGFD has determined to be supporting game fish at present or to have hydrologic and natural water quality potential to support game fish. Class III = surface waters, other than those classified as class I, that the WGFD has determined to be supporting nongame fish at present, or to have the hydrologic and natural water quality potential to support nongame fish. Class IV = surface waters, other than those classified as class I, that the WGFD has determined to not have the hydrologic or natural water quality to support fish.

[3] Class 1 = premium trout waters—fisheries of national importance. Class 2 = very good trout waters—fisheries of statewide importance. Class 3 = important trout waters—fisheries of regional importance. Class 4 = low production waters—fisheries frequently of local importance but generally incapable of sustaining substantial fishing pressure. Class 5 = very low production waters—often incapable of sustaining a fishery.

4 ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This chapter presents the environmental consequences of management actions of the proposed Cody RMP, which are described in chapter 2. General cause and effect environmental consequences that would apply to the proposed plan (and to all the draft RMP alternatives) can be found in the draft RMP/EIS (in the section on environmental consequences of Alternative A, chapter 4). With a few exceptions, these "common" environmental consequences are not repeated in this final RMP/EIS. In addition, we have minimized comparisons to the environmental consequences of other alternatives (A, B, and C) in the draft RMP. This has been done so that the description of the environmental consequences of the proposed plan can be understood without major cross-referencing. Comparisons to alternatives in the draft RMP are limited to Alternative A, which pertains to existing management and the present level of environmental consequences.

EFFECTS OF THE PROPOSED PLAN

Effects on Resources

Air Quality

Air quality would be affected by wildfire and fire control activities, timber harvest activities, mineral exploration and development, ORV use, and wildlife development. Pollutants caused by these activities would be either particulates or gaseous emissions. Particulate emissions in the form of fugitive dust would be caused by construction of roads, drill pads, and pipelines and by other construction activities. Wildfires and prescribed burning would release other particulates into the atmosphere. Suspended particulate concentrations from these activities would cause only temporary, acceptable effects on air quality.

Oil and gas production activities would release gaseous pollutants such as carbon monoxide, hydrocarbons, nitrogen oxides, sulphur oxides, and hydrogen sulfide. These air pollutants would be released by separation facilities, disposal of liquid waste and unwanted gas, burning of waste petroleum products, routine emission of objectionable odors, and venting of noxious vapors from storage tanks. Emissions of these gases would remain within Wyoming air quality standards.

There would be no effects on air quality from management actions in any of the proposed ACECs under the proposed plan.

Cultural Resources

Full suppression of wildfire would be practiced on roughly one-fourth as much area as under Alternative A of the draft RMP/EIS. In other areas, limited suppression would be practiced or restrictions would be placed on the use of heavy equipment. This would reduce potential adverse effects on cultural resources by limiting the modification of the ground surface by heavy equipment.

No significant cultural resources are known to be on lands potentially suitable for public sale. Any significant cultural resources on these lands probably would be discovered in site-specific investigations that would be conducted during evaluation of sale proposals. In such cases, effects would be mitigated by appropriate wording in the patent, or the sale could be denied if necessary.

Termination of BOR withdrawals on about 202,000 acres would make possible such land uses as locatable mineral development or desert land entry on lands where those activities formerly were prohibited. No significant cultural resources are known to be on lands where new surface-disturbing activities would be expected to occur.

Because of the procedures for inventory and protection of cultural resources, no adverse effects on cultural resources would be anticipated from surface-disturbing activities except those related to exploration for and development of locatable minerals. Opportunities for protecting cultural resources from the effects of locatable minerals activities are limited. Restrictions on such activities afford less protection than restrictions on other surface-disturbing activities.

When locatable mineral development would disturb less than 5 acres and a plan of operations is not required, the time allowed for cultural resource inventories is minimal. For disturbances of 5 acres or more, a plan of operations is required and more time is allowed for cultural resource inventories. The longer time and the requirement for compliance with section 106 of the National Historic Preservation Act would result in protection of a greater number of resources that could be affected by the activities. Activities disturbing less than 5 acres would potentially result in more impacts because of shorter times for review and the nondiscretionary nature of the action. Effects on cultural resources from locatable mineral development generally would be proportionate to the acreage available for development and the level of activity.

Under the proposed plan, the level of unintentional damage to cultural resources from ORV use all proposed ACECs would be less than under present management because of ORV closures or the restriction of ORV use to designated roads and trails. Cultural resources would be further protected by locatable mineral closures in all or part of four proposed ACECs. They also would be protected by the requirement for plans of operations for any disturbance by locatable minerals activites in all proposed ACECs.

Compared to Alternative A (present management), the use of limited wildfire suppression techniques would reduce the possibility of unintentional damage to cultural resources in parts of the Chapman Bench proposed ACEC and in the Sheep Mountain Anticline proposed ACEC.

Forestlands

Under the proposed plan, the present level of timber harvest would continue to improve diversity in the age and size class structure of timber stands. The loss of timber to natural mortality, fire, and disease would be gradually reduced by 40 to 50%. About 2,200 acres of the timber production base would be managed on a 160-year rotation period to provide enough overmature stands to meet various resource needs.

The 2,700 acres of forestland that is not in the timber production base would be left for natural succession to occur. This would mean that approximately 20% of the total forestland would be in an overmature, decadent condition at any given time. Eventually disease, fire, or other factors would cause overmature stands to revert to earlier successional stages. As these stands reverted to younger stages, other stands would be moving into older age classes to take their place. This would ensure that enough overmature timber would be available to meet various resource objectives.

The productivity of the 5,700 acres of the timber production base to be managed on a 120-year rotation period would increase by 80 to 100% because of intensive management practices such as thinning. Stands that now produce 8 to 10 MBF per acre would produce 15 to 20 MBF during the next rotation period. About 60 million board feet (MMBF) would be available for harvest from these stands over the rotation period of 120 years.

The 2,000 acres of the timber production base that would be managed on a 160-year rotation period would be primarily Douglas-fir and spruce-fir stands. The practice of holding this timber for a longer period would mean that 8 to 10 MMBF less could be harvested than if the stand was harvested at the end of 120 years. This would be an average yearly loss of about 100 MBF.

A seasonal restriction to protect peregrine falcon recovery areas would affect about 1,500 acres of the Rattlesnake Mountain Forest Management Plan area, including about 500 acres of forestland. These restrictions would apply to timber harvest activities but not to use or development of access for forest management. At present the only action planned on the 500 acres of affected forestland is sale of fuelwood. It is expected that the seasonal restriction would have no effects on forest management activities.

There would be no effects on forestland resources from management actions in any of the proposed ACECs.

Geology and Minerals

Effects from Lands Actions

The possible sale of public lands under section 203 of FLPMA could cause limited adverse effects on mineral development. On lands that are prospectively valuable for oil and gas and other mineral resources, the surface could be sold, but in most cases the mineral estate would be retained in public ownership. This could affect the cost of mineral development to some extent by creating "split estate" lands. Potential mineral developers would then need to negotiate with the new surface owners as well as with the BLM, and the development costs could be increased. These adverse effects would be greatest on lands in existing oil and gas fields. It is also possible that previously unexplored lands containing unknown mineral values would be disposed of. If the mineral estate was sold, the government would lose royalties; if the surface was sold, causing "split estate" lands, the cost of mineral development probably would increase.

The removal of segregations on BOR-withdrawn and C&MU classified lands would make more land available for locatable mining activity. Bentonite mining would occur on previously undisturbed areas with high value bentonite resources, especially in areas north of Cowley. This would have an economically beneficial effect on the bentonite mining industry. Because the high quality deposits are large and the processing plants in Lovell are nearby, development costs would be relatively low. Therefore, the sites would be mined soon after they became available.

Effects From Wildlife Actions

No significant impact would occur from restrictions prohibiting surface-disturbing activities on about 2,480 acres of public land within 2½ miles of one active bald eagle nest. Most of the public land tracts included in the 2,480 acres are small and could be explored by directional drilling.

Directional drilling might be required because of restrictions on surface-disturbing activities on approximately 1,300 acres in the black-footed ferret essential habitat area. This could increase the cost of exploration or development in the area. The ferret habitat is in an area of high potential for hydrocarbons.

The objective of minimizing surface disturbances in grouse habitat areas would have a limited effect on oil and gas exploration and development. The effect generally would be that the cost of exploration and development would be increased in some cases by the emphasis placed on development of on-site or off-site improvement of grouse habitat. Although these costs would increase locally, most activities could continue without the need to provide this type of mitigation.

No surface disturbance would be allowed in high value recovery habitat for black-footed ferrets outside the essential habitat area for those animals. This restriction would apply only to the specific portions of a mineral lease overlain by recovery habitat areas. Generally, oil and gas exploration and development would be possible by directional drilling beneath habitat areas, most of which occupy less than 40 acres.

Outside the essential habitat area, surface-disturbing activities would be prohibited on moderate and low value black-footed ferret recovery habitat areas until black-footed ferret searches could be conducted. This would cause no adverse effect if the searches were completed in a timely manner.

A "no surface occupancy" restriction would be applied to Bighorn River HMP/RAMP tracts. These tracts lie within areas with moderate or high hydrocarbon potential, but no impact on exploration or development would be expected in the next ten years.

No effect on oil and gas exploration and development would be expected from a "no surface occupancy" stipulation in the Yellowtail Wildlife Habitat Management Unit. This determination is based on surface and subsurface geology, oil and gas potential in the area, and drilling history (all five wells that were drilled between 1934 and 1976 were dry).

All lands in the Yellowtail Wildlife Habitat Management Unit that have the potential for locatable mineral occurrence are already covered by mining claims; therefore, a locatable mineral closure would not have any effect on the valid existing rights of these claims.

Effects From Actions in Proposed ACECs.

Surface-disturbing activities would be restricted on more than 7,000 acres in the Carter Mountain proposed ACEC because of slope restrictions to protect fragile soils. The use of existing roads and trails and mitigation of effects on fragile soils generally would allow exploration and development activities to occur. However, in many areas the only way a potential reservoir could be reached would be by directional drilling.

The recovery of oil and gas by directional drilling is more costly for several reasons. The amount of increase in costs depends on several factors, one of which is the departure (the horizontal distance between the drill rig and the target zone or potential reservoir). On Carter Mountain, 2,200 acres of federal minerals would be inaccessible to wells drilled with a ¼-mile departure or less, but only 300 acres would be inaccessible to wells drilled with a ½-mile departure. A well with a ¼-mile departure would not be very difficult to complete, one with a ½-mile departure would be moderately difficult, and one with a 1-mile departure probably would not be attempted because of the cost and the level of difficulty.

In addition to the departure, other factors that determine the increase in costs due to directional drilling are the depth of the hole, the subsurface geology, and the method of drilling. Rented drill rig and equipment would be needed for a longer time in directional drilling; therefore, rental costs would be higher. The cost of drilling mud, labor, and equipment also would would be higher in directional drilling, and more dirt work would be needed to accommodate additional equipment.

As a rough estimate, a 10,000-foot well with a ¼-mile departure could cost 10% more than the same well with no departure; one with a ½-mile departure could cost 50% more; and one with a 1-mile departure, 100% more.

Although no drilling has occurred in the proposed ACEC so far, interest in exploration in the Carter Mountain area is high.

There would be no adverse effects on oil and gas exploration and development under the proposed plan from management actions in the Five Springs Falls, Little Mountain, and Sheep Mountain Anticline proposed ACECs.

Overlapping seasonal restrictions to protect wildlife in the Chapman Bench proposed ACEC would limit drilling time from a minimum of about four months to a maximum of about six months per year, depending on location. Oil in this area is most likely to occur in the Frontier Formation, which is about 15,000 feet below the surface. Drilling to reach this depth would take two or more years to complete because of the seasonal restrictions; the added cost of drilling could make exploration uneconomical. However, on the basis of projections of future activity, it appears unlikely that the area would be drilled for deep gas within the next ten years. Shallower reservoirs could be developed within "open" periods allowed by seasonal limitations, and because of this, adverse effects on oil and gas development would not be expected in the Chapman Bench proposed ACEC.

Although additional locatable mineral closures would be made in all of the proposed ACECs, no effects would be expected on locatable mineral exploration and development. In the two proposed ACECs that have large numbers of existing claims (Little Mountain and Sheep Mountain Anticline), most areas of mineralization are already covered by mining claims. A new mineral closure would not have any effect on the valid existing rights for mineral exploration and development that would be associated with these claims.

Livestock Grazing

Proposed range projects and intensive management systems in 49 "I" allotments eventually would improve overall range condition and restore 3,613 AUMS in the long term. This would reflect a level within 97% of the existing grazing use (as described in Alternative A of the draft RMP/EIS). The suggested practices would be spring deferment of grazing, rest-rotation grazing systems, vegetation manipulations, and structural projects to improve livestock distribution. Improved forage production and condition would benefit both livestock and wildlife.

Spring livestock grazing would be subject to rest systems or deferment on seven allotments to restore overall vigor of desirable cool season grasses. These measures might cause operators to seek private pastures or to use supplemental feed during specific seasons. The need to move livestock and to maintain facilities could mean additional work for the operators affected.

Livestock trailing would be monitored in allotments along historical livestock trailing routes so that appropriate use levels could be determined. Livestock trailing would be adjusted if it was in conflict with other grazing use within affected allotments. These adjustments could require some operators to move livestock by truck or obtain permission to move livestock over private lands, which generally would increase costs for affected operators. After monitoring and consultation with permittees, withdrawals for livestock driveways no longer required for trailing would be revoked. In addition, the BLM would modify routes of historical use to mitigate impacts associated with livestock trailing.

Recreation

Designation of five SRMAs, improved access, and promotion of recreation opportunities would bring about an increase of 164,220 recreation visitor days (RVDs) above existing use. The changes in annual recreation use are displayed in revised table 42.

ORV designations provided by the proposed plan would change the pattern of use. Designation of ORV play areas and increased directional signing would increase use from 4,500 to 5,400 RVDs. ORV use IN 85% of the planning area would be limited to existing roads and trails. Access could be restricted in the remainder of the plan-

REVISED TABLE 42

CHANGES IN ANNUAL RECREATION USE UNDER PROPOSED PLAN

Activity	West Slope Special Recreation Management Area		Bighorn River Special Recreation Management Area		Cave Special Recreation Management Area[1]		Historic Trails Special Recreation Management Area		Rivers Special Recreation Management Area[2]		Cody Extensive Special Recreation Management Area[2]		Total Recreation Use	
	RVDs	% Change	RVDs	% Change	RVDs	% Change	RVDs	% Change	RVDs	% Change	RVDs	% Change	RVDs	% Change
Water-based uses	0	0	1,400	+75	0	0	0	0	3,500	0	700	-13	5,600	+80
Fishing, hunting & trapping	45,000	+6	25,500	+5	0	0	0	0	9,000	0	35,000	+150	114,500	+40
Off-road vehicle use	1,600	-15	600	0	0	0	0	0	0	0	3,200	+60	5,400	+20
Cave use	10	-40	10	-75	2,000	+123	0	0	0	0	50	-50	2,070	+97
Sightseeing and other recreation use	66,000	+450	32,500	+30	0	0	1,000	0	25,000	0	118,800	+110	243,300	+75
Total use	**112,610**	**+25**	**60,010**	**+19**	**2,000**	**+123**	**1,000**	**0**	**37,500**	**0**	**157,750**	**+115**	**370,870**	**+70**

[1] Includes only underground cave use, other recreation use taking place on the surface is included in West Slope Special Recreation Management Area or Cody Extensive.

[2] Includes some BOR withdrawn lands.

ning area, where ORV use would be limited to designated roads and trails; however, routes could be designated to allow access to areas that are now open to motor vehicles. There would be ample challenges for most ORV enthusiasts in 85% of the planning area.

The establishment of ORV play areas near Lovell (Bentonite Hills and Lovell Lakes) could reduce the level of dispersed ORV use or adjacent lands in the Bighorn Canyon National Recreation Area.

While it would be necessary to protect the public, closing of areas around shooting ranges to ORV use could reduce the size of the Bentonite Hills ORV play area. In addition, because that area would not be closed to locatable mineral development, its use for ORV activities could be lost. However, other areas could be designated for this use.

Restrictions on exploration for and development of leasable and locatable minerals would prevent degradation of important recreational resources. Specifically, the "no surface occupancy" restriction would protect major cave passages. River tracts, recreation sites, and significant caves also would be protected by closures to location of mining claim.

ORV restrictions and restrictions placed on mineral development would stabilize opportunities for semiprimitive nonmotorized recreation in 2% of the planning area. (See table 43 in the draft RMP/EIS and the Additions and Corrections for chapter 4.)

No significant adverse effects on recreation resources would be expected to result from possible sale of public lands provided easements could be maintained or established for public access across the patented lands where necessary. No significant effects would result from termination of BOR withdrawals and C&MU classifications.

Recreation use under the proposed plan would remain at a level of about 1,500 RVDs in the Carter Mountain proposed ACEC.

Recreation use in the Chapman Bench proposed ACEC would remain at fewer than 50 RVDs per year.

Recreation use in the Five Springs Falls proposed ACEC would continue to be about 800 RVDs per year. Additional interpretive signs, restrictions on climbing and hiking, and closure of the proposed ACEC to ORV use would not affect the recreation opportunities.

Recreation use in the Little Mountain proposed ACEC would increase to about 1,500 RVDs annually because of the establishment of visitor services, construction of facilities, and use of directional and interpretive signing. Cave use would make up 60% of this increase in use, and hunting, fishing and sightseeing would account for the remainder. Limitation of ORV use to designated roads and trails would reduce adverse effects on caves while allowing access throughout the proposed ACEC.

Recreation use in the Sheep Mountain Anticline proposed ACEC would increase to about 3,500 RVDs per year.

Soils

The proposed plan would lead to reductions in accelerated soil erosion in both the short term and the long term (see table 44 in the draft RMP/EIS). A decrease of about 60,700 tons in the short term and 490,600 tons in the long term would result largely from changes in grazing and recreation management. Effects on soils from range management would increase in the short term by about 6%, but they would decrease by about 17% in the long term.

Limitations on ORV use and concentration of recreation in designated areas would bring about a 37% reduction in recreation-caused soil impacts.

Soil loss in the Carter Mountain proposed ACEC would be reduced significantly from the current level because of ORV restrictions.

Soil loss would remain about the same in the Chapman Bench proposed ACEC despite the management objective to reduce vegetative height and density before the long-billed curlew and mountain plover nesting season.

In the Five Springs Falls, Little Mountain, and Sheep Mountain Anticline proposed ACECs, soil impacts would result from exploration and development of leasable and locatable minerals, livestock grazing, right-of-way construction, and ORV use. The levels of these impacts under the proposed plan would be somewhat less than under present management because of restrictions on surface-disturbing activities, including ORV use.

Vegetation

ORV use would be restricted more under the proposed plan than at present; therefore, there would be fewer effects on vegetation.

Under the proposed plan, vegetation would be partially or totally removed by surface-disturbing activities such as minerals exploration and development, right-of-way construction, and timber harvesting. While some impacts from surface-disturbing activities are short term, others may last more than 20 years. For example, revegetation of bentonite mines in the eastern portion of the planning area is not very successful because the soils are poor and the area has low precipitation. Other long-term impacts would be caused by construction of permanent roads, structures, and other facilities.

Construction of drill pads, roads, pipelines, power lines and other facilities for oil and gas operations would result in the net loss of vegetation from almost 200 acres per year. Geophysical exploration for oil and gas usually would disturb vegetation on less than 1 acre per mile of operation. It is estimated that 80% of the area disturbed by oil and gas related activities would be reclaimed and revegetated within three years. Reestablishment of vegetation on sites that have been disturbed for long periods would be difficult if topsoil became sterile or eroded away.

Vegetation would be disturbed by activities associated with trenching and strip mining for locatable and salable minerals, especially bentonite. For example, vegetative cover is removed or destroyed from areas that are used for trenching, mining, haul roads, and storing overburden and topsoil. In most cases, the poor growth mediums of the soil types and the low precipitation in areas where bentonite is found have made it impossible to replace the original vegetative community through reclamation. Net vegetative productivity is reduced on up to 400 acres per year by bentonite mining and on fewer than 20 acres per year by sand and gravel mining.

The area needed for sanitary landfills usually is about 3 acres per 10,000 people per year. Vegetation on less than 10 acres per year would be disturbed for landfills in the planning area; approximately one AUM of forage would be lost.

Farming on desert land entries would cause existing vegetation to be replaced by such irrigated crops as alfalfa, barley, corn, sugar beets, or dry beans. The value of production depends on crop yield and price. The vegetative composition would be changed by the activities of crop production, including tilling of soil; seeding of crops; irrigation; application of fertilizers, herbicides, and insecticides; and harvesting.

After about 20 years, range management activities (stocking rate adjustments, use of grazing systems, and range project developments) would result in range condition ratings of 27% poor, 31% fair, 21% good, and 4% excellent. The remaining 17% covers range sites that are "unconditioned" at present (see table G-1 in appendix G).

Vegetative manipulations to increase plant species diversity and protective fencing would improve the condition of 9,600 acres within 10 years. Range project construction would cause a short-duration removal of or reduction in vegetation on 27,000 acres, but these projects would improve range condition to good or better after 20 years.

Proposed wild horse numbers would be at a level that would stabilize current range conditions in most of the herd area. No improvement in condition would be expected on 62,000 acres in the herd area, but vegetation on 7,660 acres would be improved by at least one condition class, primarily through natural regeneration.

The condition of vegetation on about 2,700 acres of prairie dog towns would remain static or continue to decline. Prairie dog control on about 225 acres would improve range condition.

Forest management activities would reduce age class and plant species diversity on 500 acres after 20 years. Vegetative improvement (thinning) would occur on 970 acres after 10 years.

The possible sale of public lands under the proposed plan would have no significant adverse effects on vegetative resources. No significant rare plants are known to exist on lands identified as potentially suitable for disposal. Any significant vegetative resources on these lands probably would be discovered in site-specific investigations that would be conducted during evaluation of sale proposals, and the sale could be denied if necessary.

No significant adverse effects on vegetation would be expected from termination of BOR withdrawals and C&MU classifications.

No effects on vegetation would be expected under the proposed plan from management actions in any of the proposed ACECs.

Visual Resources

The effects on visual resources under the proposed plan would be the same as those described for Alternative A of the draft RMP/EIS. For example, there would be long-term or permanent impacts on about 20% of the area disturbed by mineral exploration and development, right-of-way construction, timber harvesting, livestock grazing, and ORV use.

The visual quality of the Carter Mountain proposed ACEC would be maintained or improved through restrictions placed on surface-disturbing activities and ORV use.

Restricted ORV use would maintain or improve the visual quality of the Chapman Bench proposed ACEC.

Management of the Five Springs Falls proposed ACEC according to Class I VRM objectives would protect the visual integrity of the natural landscape.

Visual quality would be improved in the Little Mountain proposed ACEC through cleanup of some of the area's uranium mining and exploration diggings under the state of Wyoming's abandoned mined land reclamation program.

Visual quality in the Sheep Mountain Anticline proposed ACEC would be improved somewhat under the proposed plan through restrictions placed on ORV use. However, visual quality would decline locally as a result of locatable minerals mining and exploration activity on limestone and building stone claims in the proposed ACEC.

Water Resources

Under the proposed plan, produced water and associated salt loadings would gradually decrease as oil and gas production declines. Like most groundwater, produced water generally is higher in dissolved solids (salinity) than surface water because of longer exposure to minerals. The decrease in produced water would result in a gradual improvement in the quality of receiving perennial streams. However, produced water discharged to ephemeral drainages has created numerous wetland/riparian areas and associated wildlife habitat. In addition, produced water provides water for wildlife and livestock and augments water used for irrigation purposes. If produced water accounts for the majority of streamflow, there would be a loss of wetland habitat commensurate with reductions in produced water discharges.

Annual suspended sediment loads would decrease from the present rates by 11,000 tons (3%) in the short term and 53,000 tons (13%) in the long term. Sediment loads that would be generated by each drainage basin are listed in table 45 of the draft RMP/EIS.

Changes in range management on "I" category allotments would bring about a short-term increase (10,100 tons, or 2%) and a long-term decrease (32,900 tons, or 8%) in sediment yields. Management actions for recreation would reduce sediment yields by 17,000 tons (4%) through restrictions on ORVs and the designation of ORV play areas.

Restrictions that would be imposed on surface-disturbing activities to protect fragile soils, wildlife, and wildlife habitat would reduce sediment yields from these activities by 2,200 tons (1%).

Wetlands

Implementation of proposed grazing practices and projects in wetland areas would ensure rapid restoration and improvement of wetland habitat conditions in the planning area.

Stream habitat conditions would be improved through reductions in livestock grazing or changes in seasons of use. Vegetative diversity and density within the riparian zones would increase, causing the channels to narrow and become more stable. Implementation of projects to improve stream zones would accelerate habitat recovery.

Reservoir wetlands would improve through implementation of the proposed grazing practices and reservoir habitat enhancement projects. The number of wetlands would increase with construction of new reservoirs. Similar management practices would have the same effect on wetlands associated with springs.

Erosion and subsequent sedimentation in wetlands would be reduced through the reduction of surface disturbance caused by grazing, minerals development, and ORV use. This would improve stream and reservoir habitat condition and extend the life of reservoirs.

The net effect of implementation of the proposed plan would be reversal of the downward trend in habitat condition. About 40% of the stream zone miles would improve by at least one condition class within ten years after plan implementation. The habitat condition of the identified management reservoirs and springs either would be maintained in acceptable condition or would be improved.

Wild Horses

The effects on wild horses from the proposed plan would be the same as those under existing management. At the proposed population level of 100, a healthy breeding herd would be maintained. There would be no effects on wild horses from actions in any of the proposed ACECs.

Wildlife and Fish Habitat

Fisheries

Improvement of fisheries habitat generally would parallel that for wetlands. Establishment of proposed grazing practices and implementation of stream and reservoir habitat improvement projects would improve and create fisheries habitat. Stream fish would benefit primarily through natural habitat recovery associated with reduced livestock use of stream zones.

Streamside vegetation would increase, resulting in narrower and deeper channels with overhanging banks. As the channels narrowed, rubble/gravel bottoms would become cleaner and more conducive to spawning and fish food production. With implementation of improved grazing systems, erosion and peak runoff from uplands would be reduced, resulting in further improvement of conditions for support of stream fish.

Creation of new water development projects would create new reservoir fisheries and would help to attract livestock away from stream zones. Construction of new reservoirs would result in creation of additional fisheries habitat.

Reduction of stream channel and upland erosion would decrease turbidity and sedimentation of fisheries habitat in streams and reservoirs. Improved watershed conditions would reduce peak flows and increase more desirable flows during low water periods, improving fish habitat conditions in both perennial streams and reservoirs.

Overall, implementation of the proposed plan would stop or reverse the downward trend of perennial stream habitat and improve about 40% of the stream miles by at least one condition class. The decline of existing reservoir fisheries habitat would be slowed or temporarily halted. Construction of at least two new reservoirs with fish support capability would increase the total standing water fish habitat.

Wildlife Habitat

Terrestrial Habitats and Animal Communities. The effects on wildlife habitat that could be expected to occur under the proposed plan are shown in table 46 in the draft RMP/EIS.

The revision and implementation of the Rattlesnake Mountain Forest/Habitat Management Plan would lead to better integration of forest management practices and wildlife management practices. Actions carried out under the proposed plan would improve animal species diversity and the quality and diversity of habitat in 5,900 acres (46%) of high-value forestlands. This would benefit approximately 160 wild animal species, including accipiters, cavity-nesting owls, moose, and elk.

Recreational activities in wetland habitats during breeding seasons would increase stress on breeding animals and would decrease wildlife production.

Production and Recovery Habitat for Endangered Species. During the next ten years, approximately 2,500 acres of black-footed ferret recovery habitat would be surveyed for ferrets or improved for ferret recovery as described in the prairie dog ecosystem HMP (USDI, BLM *1986d).

The habitat quality of 170 acres (1%) of bald eagle production habitat would be reduced by human intrusions and other activities associated with bentonite mining. Bald eagles probably would not be affected during the next 10 years, but bald eagle production could be lowered by mining activity in 10 to 25 years. All high potential bald eagle recovery habitat would be incorporated into the Yellowtail Wildlife Habitat Management Unit and managed for eagle production and winter support. This would be expected to result in the establishment of one new eagle nest within ten years and the improvement of 230 acres of winter support habitat.

Six nesting pairs of American peregrine falcons would be expected to occupy portions of the planning area in the next ten years. Peregrine falcon reintroductions would be carried out as described for Alternatives A and B (in the draft RMP/EIS). The proposed plan also would promote bald eagle and peregrine falcon recovery on lands administered by the National Park Service (NPS) in the Bighorn Canyon National Recreation Area.

Production and Recovery Habitat for Candidate Species. The quality of production habitat for long-billed curlews and mountain plovers would be reduced in the next ten years by human intrusions and other disturbances from oil and gas activity. This would occur on about 450 acres (2%) of such habitat both inside and outside the Chapman Bench proposed ACEC. One nesting pair of one of those species would be eliminated. The ACEC proposal would include development and improvement of 6,000 acres of foraging and production habitat for curlews along Sand Coulee Draw. This would be expected to increase the breeding curlew population by 50%.

The proposed plan would include improved resource protection measures for new ferruginous hawk nest sites. Not more than four breeding pairs of ferruginous hawks would be expected to inhabit the planning area in ten years, but the potential for species recovery would be better than under existing management. Swainson's hawks would not be affected by management actions under the proposed plan.

Production and Staging Habitat for Waterfowl and Water Birds. The quality of 900 acres (2%) of sandhill crane fall staging/roosting habitat would be reduced in the next ten years by human intrusion and other disturbances due to oil and gas activities. This would cause a 1% reduction in the crane population.

With restrictions on power line construction near major river drainages, power line collision mortalities of migrating and resident water birds still would occur at an undetermined level, but the number would be expected to be lower than existing management.

Fewer invertebrate prey animals would be lost under the proposed plan than under existing management because of restrictions on chemical control of noxious weeds. This would improve the production of waterfowl, double-crested cormorants, and great blue herons.

Raptor Production Habitat. Human intrusions and disturbances from bentonite mining activities would eliminate 520 acres of raptor production habitat during the next ten years. This probably would cause one nest to be abandoned.

Collision mortalities of certain raptor species would be expected to be fewer under the proposed plan because of restrictions on the construction of aboveground power lines along major rivers. These are the areas where most wetland habitats, flight routes to feeding areas, and migration corridors are found.

Grouse Production Habitat. Human intrusion and other disturbances related to bentonite mining would eliminate one sage grouse strutting ground in the next ten years, and the quality of 1,100 acres of sage grouse habitat would be lowered.

Adverse effects on sage grouse and sharp-tailed grouse would be less likely than under existing management because one management objective under the proposed plan to limit surface disturbances to no more than 10% of suitable nesting habitat within 2 miles of dancing grounds.

Habitat for Big Game Ungulates. Competition for forage would occur between livestock and pronghorn on about 437,000 acres of the pronghorn habitat on public land. The grazing use of some of the plant groups (grasses, forbs, shrubs) on these lands would exceed the amount of the vegetation that the plants could replace under normal climatic conditions. On approximately 144,000 of these acres, use would be extensive enough to remove from all of the plant groups more total vegetation than the amount that would normally be replaced. These conflicts would affect pronghorn populations in the Badger Basin, Carter Mountain, and Crystal Creek herd units. The affected public lands support 42% of the summer pronghorn population and 45% of the winter pronghorn population in those herd units. Within ten years, this could result in a net loss of 2% of the existing pronghorn population (see table 47 of the draft RMP/EIS).

Competition for forage would occur between livestock and elk on about 99,000 acres of the elk habitat on public land. The grazing use of some of the plant groups (grasses, forbs, shrubs) on these lands would exceed the amount of the vegetation that the plants could replace under normal climatic conditions. On approximately 34,000 of these acres, use would be extensive enough to remove from all of the plant groups more total vegetation than the amount that would normally be replaced. Conflicts would affect elk populations in the Carter Mountain, Clarks Fork, Horse Creek, Northeast Bighorn, and North Fork Shoshone herd units. The affected public lands support 2% of the summer elk population and 7% of the winter elk population in those herd units. Included in the areas of conflict are 35,000 acres of the crucial winter habitat and parturition habitat for elk on public land.

Surface disturbance and other activities associated with mineral development would reduce elk crucial winter habitat by about 190 acres and would reduce elk parturition habitat by about 80 acres. The quality of 6,500 more acres of elk parturition habitat would be lowered.

Localized human disturbances from ORV traffic would displace elk populations on crucial winter ranges and calving ranges and probably would cause mortalities.

Management actions such as plantings to improve vegetative species diversity, management of vehicle access, and timber harvest to increase edge effect would lead to improvement of 5,900 acres (46%) of the dense conifer elk support habitat on public land in the planning area.

Cumulatively, the effects on elk from the proposed plan would result in a net loss of 7% of the existing elk population.

Competition for forage would occur between livestock and deer on about 581,000 acres of the mule deer and white-tailed deer habitat on public land. The grazing use of some of the plant groups (grasses, forbs, shrubs) on these lands would exceed the amount of the vegetation that the plants could replace under normal climatic conditions. On approximately 156,000 acres, use would be extensive enough to remove from all of the plant groups more total vegetation than the amount that would normally be replaced. Conflicts would affect deer populations in the Clarks Fork, Devil Canyon, Greybull River, Horse Creek, Meeteetse, North Fork Shoshone, Shoshone River, and South Fork Shoshone herd units. The affected public lands support 3% of the summer deer population and 9% of the winter deer population in those herd units. Included in the areas of conflict are 39,000 acres of crucial winter habitat for deer.

Surface disturbance and other activities associated with mineral development would reduce crucial winter habitat for deer by about 700 acres, and the quality of 30,000 more acres would be lowered.

Cumulatively, the effects on deer from the proposed plan would result in a net loss of 1% of the existing deer population.

Competition for forage would occur between livestock and moose on about 26,000 acres of moose habitat on public land. The grazing use of some of the plant groups (grasses, forbs, shrubs) on these lands would exceed the amount of the vegetation that the plants could replace under normal climatic conditions. These conflicts would affect moose populations in the Greybull-Gooseberry and North Fork Shoshone herd units. The affected public lands support 10% of the summer moose population and 12% of the winter moose population in those herd units.

Management actions such as plantings to improve vegetative species diversity, management of vehicle access, and timber harvest to increase edge effect would lead to improvement of 480 acres (24%) of the dense conifer moose support habitat on public land in the planning area. Over a ten-year period there would be no effect on moose populations.

Competition for forage would occur between livestock and bighorn sheep on about 46,000 acres of the bighorn sheep habitat on public land. The grazing use of some of the plant groups (grasses, forbs, shrubs) on these lands would exceed the amount of the vegetation that the plants could replace under normal climatic conditions. On approximately 26,800 of these acres, use would be extensive enough to remove from all of the plant groups more total vegetation than the amount that would normally be replaced. These conflicts would affect bighorn sheep populations in the Francs Peak, North Bighorn, Trout Peak, and Wapiti Ridge herd units. The affected public lands support 2% of the summer and winter populations in those herd units. Included in the areas of conflict are 10,300 acres (57%) of the crucial winter habitat for bighorn sheep on public land. Over a ten-year period, these effects would result in a net loss of 2% of the existing sheep population.

Effects on Socioeconomic Conditions

Agriculture

General Effects

Under the proposed plan, the annual allowable forage levels and related output revenue, personal income, and employment would be lower than either current levels or levels that were projected if existing management had been continued. The number of AUMs projected for the first 10 years under the proposed plan would be roughly 8% lower than those that were projected if existing management had been continued. However, in the long term, some of this loss would be regained, so that by the 20th year the proposed plan allowable forage level would be only 2% to 3% less than the expected level from continuation of existing management. For this analysis, it is assumed that changes in AUMs would be accompanied by changes in related output revenues, personal income, and employment.

Output Revenue

After 10 years under the proposed plan implementation, BLM-administered AUMs would support about $21.7 million of the two-county area's annual direct livestock sector revenue. This is approximately $1.8 million less than that projected under continuation of existing management. By the end of 20 years, the amount under the proposed plan would be $22.7 million in direct revenues, or approximately $800,000 less than would have been expected if existing management had been continued. The total annual direct revenue realized by the area's livestock sector in the 1985-86 base period (from utilizing both public and private AUMs) was about $70.5 million.

The decline in direct output revenues under this alternative would lead to subsequent declines in indirect and induced revenues, so that the total output revenues (direct plus indirect plus induced) supported by BLM-administered livestock AUMs could amount to slightly more than $56 million by the 10th year and nearly $59 million by the 20th year. By comparison, BLM-administered AUMs currently support almost $61 million in total annual area revenues. Under continuation of present management, the current levels would continue during the first 10 years of plan implementation but would decline to $60 million in 20 years. In 1985-86, the total area livestock sector supported about $183 million of total area output revenue.

Personal Income

The total livestock sector accounted for almost $22 million in direct plus indirect plus induced annual personal income in the two-county area in 1985-86. The BLM-administered AUMs supported about one-third of that total. Under the proposed plan, the total annual personal income supported by BLM-administered AUMs would decline from both current levels and levels projected if existing management had been continued. By the 10th year, the total could be $576,000 lower, but by the 20th year it could recover to about $240,000 less.

Employment

About one-third of the two-county area's livestock-related employment is supported by BLM-administered AUMs. Workers supported by the area's livestock sector activities totaled approximately 2,640 in the 1985-86 base period. BLM-administered AUMs supported about 879 of these. Under the proposed plan, the total employment supported by BLM-administered AUMs could decline from current levels by 69 positions in 10 years. By comparison, the total annual number of area positions supported by BLM-administered AUMs would not change during the first 10 years under existing management but it would decrease by about 12 positions in 20 years. Under the proposed plan, some improvement would occur by the 20th year, so that the total employed could be only 29 positions lower than the level that would result from continuation of present management.

Forestry

Output Revenue

It is projected that annual harvesting of sawtimber and fuelwood from BLM-administered land under the proposed plan would equal present levels of 500 MBF and 1,500 cords, respectively. Therefore, the direct sales value of this output would be expected to range between $12,000 and $20,000 annually. That estimate is based on a $10 to $20 per MBF saw timber price and a $5 per cord fuelwood return.

It is estimated that most of the sawtimber sold by the BLM would continue to be milled within the resource area and would continue to represent about 5% of all sawtimber harvested in the resource area. It is also expected that the value of timber harvested from BLM-administered lands in the planning area would continue to amount to 1% to 3% of the direct output revenue from the total forestry sector in the two-counties (Big Horn and Park). The two-county area's forestry sector is responsible for around $1.7 million of total area output revenue (direct plus indirect plus induced).

Personal Income

It is projected that personal direct income derived from the two-county area's entire forestry sector would continue to total slightly more than $380,000 per year, with $6,000 to $9,000 attributed to harvesting on BLM-administered land. When indirect and induced effects also are included, the area's forestry sector contributes about $472,000 to total area income, of which $7,000 to $11,000 would be the result of timber harvested on BLM-administered lands.

Employment

Harvesting activities related to BLM-administered land continue to support less than one work-year of total employment annually under the proposed plan. The two-county area's total forestry sector provides 29 to 30 fulltime workers with direct employment. This rises to about 35 workers when related indirect and induced employment is included.

Minerals

General Effects

The following socioeconomic analysis addresses only resource area oil and gas activities over time. Other minerals are not included because they accounted for less than 1% of the assessed value of area mineral output in 1984 and 1985 and are not expected to change meaningfully over the plan implementation period of 10 to 20 years. However, it can be noted that bentonite related mining, milling, and hauling is relatively important to the economy of the Greybull/Lovell area of Big Horn County. As a group, these activities employ about 200 persons and provide annual direct earned income of between $4 and $4.5 million. This amounts to an estimated 3% to 4% of Big Horn County's total annual earned income and about 1% to 2% of the total resource area's annual earned income.

Oil and gas output in the Cody Resource Area, including that from BLM-administered mineral estate, is projected to decline significantly over the first 10 to 20 years of plan implementation. Under present production methods, the total annual oil output in the area in 1998 is expected to be about 42% less than output in 1984, and the total annual gas output is projected to be only about one-fourth as large in 1998 as in 1984. These declines are expected to occur as the area oil and gas fields are further depleted.

There is a chance that a proposed carbon dioxide pipeline could make possible some additional recovery of area oil through tertiary injection procedures over time, thus slowing the projected decline in output. However, there is no indication of when, or if, such injection procedures would be carried out, to which fields they would be applied, or how much residual oil such injections would yield. In addition, some wells have been shut in because of low oil prices in recent years. If these were reactivated in response to price increases, that change would help to slow the projected output decline to some extent.

Output Revenue

Because of the uncertainties related to world oil supplies and related price movements, it is difficult to estimate appropriate average oil and gas prices over time. However, reported per-unit prices were applied to 1984 and 1985 oil and gas output for this analysis. For 1986 and beyond, per-unit price estimates are based on the projections of various minerals specialists and minerals publications.

It is estimated that the direct sales value of annual oil production in the resource area in 1998 will be about half that of 1984. This projection is based on an estimated price per barrel of $19.50 for area oil in 1998. This would be a drop in direct annual revenues of roughly $290 to $295 million below 1984 area revenues. About 50% to 55% of 1984 resource area oil revenues were from BLM-administered mineral estate oil output.

It is projected that annual resource area gas output value would total less than $5 million in 1998, or almost 70% below 1984 output value. Roughly half the resource area gas output value in 1984 was attributable to production from BLM-administered mineral estate.

At an estimated $270 to $275 million, the combined value of annual area oil and gas output in 1998 would be about 50% to 55% below the 1984 output value. This translates into a total (direct plus indirect plus induced) drop in annual area business activity of between $395 and $400 million by 1998.

Personal Income

The oil and gas sector of the resource area provided approximately $26 million in annual area direct personal income in 1984, with about 50% to 55% attributable to production from BLM-administered mineral estate. By 1998, the area's total annual direct personal income from the oil and gas sector is expected to have declined to slightly over $12 million. When income from the sectors supporting oil and gas activities are included, the estimated total gas and oil related personal income in 1998 would be about $20 million, or roughly $23 to $24 million less than in 1984.

Employment

The resource area's annual direct employment by the oil and gas sector in 1984 was about 965 work-years (fulltime equivalents). It is projected that this would decline to fewer than 550 work-years annually by 1998. The addition of indirect and induced employment related to area oil and gas activities brings the 1998 annual total to roughly 1,700, which is between 40% and 45% below the 1984 annual level. More than half the resource area employment related to oil and gas in 1984 is attributed to BLM-administered mineral estate.

Recreation

General Effects

The total number of RVDs projected for the joint county area under the proposed plan would be almost 1.4 million per year. This is about 6% more than the total projected if existing management had been continued. This increase would result entirely from a higher incident of nonconsumptive activities. Consumptive recreational activities on BLM-administered lands would account for about 37% of the total RVDs on that land and contribute more than $3.6 million in direct annual area output revenues.

Output Revenue

Annual direct output revenue from the total joint county area recreational activities would approach $32 million. About one-fourth of this would be supported by recreational activities on BLM-administered lands. Approximately 55% of the $32 million would be produced by the resource area's nonconsumptive activities. BLM-administered lands would be expected to support about 15% ($2.7 million) of the two-county area's direct annual revenues from nonconsumptive activities and about one-third ($5 million) of the two-county area's direct annual revenues from consumptive recreation.

About 90% of all the area pronghorn hunting and 80% of the sage grouse hunting would occur on BLM-administered land under the proposed plan. In the nonconsumptive activities, BLM-administered lands host 100% of the area caving, more than 50% of the sightseeing, and about one-third of the picnicking.

Under the proposed plan, including indirect and induced revenues related to area support of the recreation sector, total annual revenues would exceed $61 million, with BLM-administered land supporting about $15 million of that total. Total revenues under the proposed plan would be 2% to 3% higher than if present management had been continued.

Personal Income

Under the proposed plan, recreation in the two-county area would support a total of almost $7 million in direct personal income annually and more than $10.4 million in total annual area income. BLM-administered lands would support about one-fourth of these totals. Total personal income would be about 2% to 3% higher than under continuation of present management.

Employment

The total area employment related to recreational activities under the proposed plan is projected at 790 jobs, about 20 jobs higher than would be expected if present management had been continued. Recreation on BLM-administered lands would support about 192 of these positions. Approximately 68% to 70% of the total employment represents positions directly attached to the recreation sector rather than to support sectors.

Unavoidable Adverse Impacts

In addition to the natural annual soil loss of about 1,420,000 tons, the annual accelerated soil loss under the proposed plan would be about 2,587,600 tons in the short term and 2,157,700 tons in the long term.

Short-Term Uses versus Long-Term Productivity

Intensive forest management under the proposed plan would increase the productivity of timber stands by 80% to 100%.

Proposed range projects and intensive management systems eventually would improve overall range condition.

A cumulative loss in upland soil productivity and rehabilitation potential would be caused by annual accelerated erosion of about 2,587,600 tons of soil in the short term and 2,157,700 tons in the long term. About 10% of this soil would be lost as sediment to the streams that drain the planning area. Soil compaction would reduce soil productivity and moisture infiltration.

Annual sediment loads would increase by about 23,000 tons in the short term but decrease by about 83,000 tons from existing sediment loads in the long term. Changes in range management would increase sediment yields by 10,100 tons in the short term. However, in the long term sediment yields would decrease by 30,600 tons through changes in range management, by 16,000 tons through restrictions on recreation, and by 2,100 tons through restrictions on surface-disturbing activities for the protection of fragile soils and wildlife habitat.

Irreversible and Irretrievable Commitment of Resources

The losses in productivity from timber stands left as overmature growth would continue at approximately 200 MBF per year.

Short-term soil losses would be caused by proposed range projects; however, those losses would be offset by increases in soil protection afforded by improved vegetation cover.

Surface rehabilitation and watershed manipulation would cause short-term soil losses on specific sites; however, these impacts would be insignificant, and more than offset by long-term benefits.

On about 20% of the surfaces disturbed by various activities, the disturbance would be long term or permanent.

ADDITIONS AND CORRECTIONS FOR CHAPTER 4

Changes to chapter 4 of the draft RMP/EIS are shown in the following list.

ADDITIONS AND CORRECTIONS FOR CHAPTER 4

Page numbers refer to pages in the draft RMP/EIS. A partial paragraph at the top of a column counts as paragraph 1. The changed or added material in the "Should Read" column is in bold type.

Draft Page	Column	Paragraph	Line(s)	Should Read
221	1	6	2	. . . **allowed for only 3.5 months** on 2,500 acres each year . . .
227	2	4	Replace last sentence with	**Localized activities resulting in soil losses of 70 to 80 tons per acre (such as oil and gas development) would merit more immediate site-specific mitigating measures, while more widespread activities that cause losses of 1 to 4 tons per acre (such as livestock grazing) would call for longer-lasting mitigating measures.**
228	1	1	1	. . . would be implemented to improve **vegetative** condition.
232	1	3	2, 3	. . . by the notice to lessee **NTL-2B).**
232	1	3	7 to 9	. . . water generally **is subject to approval through the Underground Injection Control (UIC) permitting process, which is administered by the Wyoming Oil and Gas Conservaton Commission.**
232	1	4	6, 7	. . . water enough to **impair** its use . . .
234	1	1	4	. . . ferret surveys. **Approximately 2,500 acres of black-footed ferret recovery habitat would be surveyed for ferrets or improved for ferret recovery.**
248	2	3	6	Soil losses would **continue at present levels** in the Chapman Bench . . .
250	1	6	10	. . .24,680 tons **(6%)** associated with . . .
251	2		2	In table 33, change "10,8" to **10,800** (for the Existing Sediment Loading in tons per year for Dry Creek of the Bighorn River Subbasin).
252	2	6	1	The impacts of **forest habitat improvement,** recreational activities . . .
252	2	Following 7 Insert new paragraph		**The effects on bald eagles would be the same as those described for Alternative A.**
254	1	1	9	. . . base) production habitat. **These impacts would further reduce raptor production by 5 to 10%.**
254	1	2	10	. . . strutting grounds. **The effects of oil and gas exploration and development on sage grouse would be the same as those of Alternative A except that five more strutting grounds would be lost because the seasonal restriction to protect nesting birds would be eliminated in some areas.**
254	2	2	1	The effects on elk from **forest habitat improvement,** minerals **exploration and development,** and ORV use . . .
255	1	2	1	The effects on deer from **forest habitat improvement, minerals exploration and development,** and ORV . . .
255	1	Following 4 Insert new paragraph		**The overall effects of mineral-related activities on elk and deer habitats would be the same as those described in Alternative A, despite the loss of seasonal restrictions in some areas.**
258	1	7	1, 2	**In grouse habitat areas** approval of new activity on existing leases **could** be subject to . . .

ADDITIONS AND CORRECTIONS FOR CHAPTER 4 (Continued)

Draft Page	Column	Paragraph	Line(s)	Should Read
263	2	3	1	Soil losses would **continue at present levels** in the Chapman Bench . . .
264	1	5	1	ORV use would be **restricted more** in this alternative . . .
266	2	Following 5 insert new paragraph		**The effects of recreational activities and forest habitat improvement under Alternative C would be the same as those for Alternative A.**
269	1	2	Begin paragraph with	**The effects of forest habitat improvement would be the same as** those described for Alternative A. Surface disturbance and . . .
269	1	5	3	**420,000 acres of the deer** habitat on public . . .
269	1	6	Begin paragraph with	**The effects of forest habitat improvement would be the same as those described for Alternative A.** Surface disturbance and . . .
269	2	2	16	. . .those herd units. **The effects of forest habitat improvement would be the same as those described for Alternative A. These cumulative effects would result in the moose population increasing 19% over a ten-year period.**
274	9		1	Table 43: Semiprimitive Nonmotorized, Cody Extensive Recreation Management Area, % Change should read **0**
278	1	3	Begin paragraph with	**The effects of recreational activities on wetland habitats would be the same as those described for Alternative A.** As under all . . .

5 CONSULTATION AND COORDINATION

PUBLIC PARTICIPATION

Public participation during early parts of the RMP process are described in the draft RMP/EIS. Public participation since publication of that document is described in this section.

Availability of the draft RMP/EIS for review and comment was announced through a notice published in the *Federal Register* on April 1, 1988, a news release issued at the same time, and letters to everyone on the Cody Resource Area mailing list. These notices and letters also announced a public meeting scheduled in May.

The BLM received a total of 101 letters about the draft document. The letters are reproduced in this chapter, and each letter is followed by the BLM's responses to comments in that letter.

A total of 16 people attended a public meeting in Cody on May 24, 1988. An informal question and answer period was followed by a time for presentation of formal comments, but no formal comments were presented.

The Worland District Advisory Council has been kept apprised of the RMP progress, and their comments and recommendations have been solicited. The members of the Advisory Council toured a portion of the Cody Resource Area on May 11, 1988, and discussed concerns identified in the plan at a meeting on the following day.

Each operator of a grazing allotment has been contacted either in person or in writing to discuss the categorization of his or her allotment.

BLM personnel have met formally or informally with many members of the ranching and minerals industries and with other interest groups and agencies. A summary of comments generated from these meetings is on file in the Cody Resource Area office.

As part of the ongoing consultation and coordination activities, the BLM prepared a biological assessment of threatened and endangered species. Results of the assessment were shared with the U.S. Fish and Wildlife Service (USFWS) as required by section 7 of the Endangered Species Act of 1973, as amended.

CONSISTENCY

Coordination with other agencies and consistency with other plans were accomplished through frequent communications and cooperative efforts between the BLM and involved federal, state, and local agencies and organizations.

The Wyoming Governor's Clearinghouse was supplied with numerous copies of the draft document for review to ensure consistency with the state's ongoing plans. The RMP team reviewed land use plans for Big Horn and Park counties to ensure consistency. BLM personnel have met with the respective county planners and commissioners to promote greater understanding of goals, objectives, and resources of both the counties and the BLM.

CONSULTATION AND COORDINATION

Members of the Cody RMP/EIS team have consulted formally or informally with numerous agencies, groups, and individuals during development of the plan. The following list is representative of the businesses, agencies, organizations, and individuals that have indicated an interest in the Cody RMP and those that have been contacted during the planning process. This list is not inclusive. A complete list is on file at the Cody Resource Area office.

Required Reviewers

United States Department of the Interior
    Office of Environmental Project Review, Denver, CO
    Bureau of Land Management, Washington, DC
    Bureau of Land Management, Cheyenne, WY
    National Park Service, Division of Environmental Compliance, Washington, DC
    U.S. Fish and Wildlife Service, Division of Environmental Coordination, Washington, DC
    Minerals Management Service, Offshore Environmental Assessment Division, Washington, DC
    Bureau of Reclamation, Division of Environmental Affairs, Washington, DC
    Bureau of Mines, Mineral Data Analysis, Washington, DC
    Geological Survey, National Center, Reston, VA
Department of Defense
    Department of the Air Force
        Assistant Secretary of the Air Force, Install. Env. and Safety, Pentagon, Admiralty, VA
        HQ USAF/LEER, Washington, DC
        HQ SAC/DEPU, Offut AFB, NE
        HQ-US LEVX, Office of Env. Planning, Bolling AFB, Washington, DC
    Department of the Army
        Corps of Engineers, Omaha, NE and Portland, OR
Department of Energy, Washington
Nuclear Regulatory Commission, Bethesda, MD
Environmental Protection Agency, Denver, CO
Wyoming State Planning Coordinator, Cheyenne, WY

Other Reviewers

Federal Agencies

Department of Agriculture
    Soil Conservation Service
    Forest Service
    Farmers Home Administration
Department of Energy
    Western Area Power Administration
Department of the Interior
    Bureau of Indian Affairs
    Bureau of Reclamation
    National Park Service
    Fish & Wildlife Service
    Bureau of Land Management (other offices)
Department of Transportation
    Federal Highway Administration
Environmental Protection Agency

Federal Elected Officials

Office of Senator Alan K. Simpson
Office of Senator Malcolm Wallop
Office of Representative Dick Cheney

State Agencies, Commissions, and University

Office of the Governor of Wyoming
State of Wyoming
    Department of Environmental Quality
    Department of Agriculture
    Game & Fish Department
    Geological Survey
    Highway Department
    State Engineer
    Conservation Commission
    Recreation Commission
    Board of Land Commissioners
    Water Development Commission
University of Wyoming

State Legislators

State senators and state representatives from Big Horn, Hot Springs, Park, and Washakie counties

Counties and Cities

Mayors' offices of Basin, Burlington, Byron, Cody, Cowley, Deaver, Frannie, Greybull, Lovell, Meeteetse, and Powell

County Commissioners of Big Horn and Park counties

DISTRIBUTION

In addition to the agencies and offices listed above, notices, requests for comments, and copies of this document have been sent to businesses, organizations, interest groups, and individuals. Copies are available for review in the BLM offices in Cheyenne, Worland, and Cody and at the county libraries of Big Horn and Park counties.

Organizations, Businesses, and Individuals

The following list is not inclusive; rather, it is a representation of recipients of notices and copies of this document. A complete list is on file at the Cody Resource Area office.

Organizations

Absaroka Flycaster Club
American Cave Conservation Association
American Wilderness Alliance
Audubon Society, High Plains Chapter
Audubon Society, Murie Chapter
Basin Sportsmens' Club
Big Horn Basin Wildlife Club
BLM Lands Foundation
Earth First!
Foundation for North American Wild Sheep
Girl Scout National Center West
Hot Springs County Sportsmens' Club
Izaak Walton League of America
National Audubon Society
National Speleological Society
National Wildlife Federation
Natural Resources Defense Council

Park County Resource Council
Petroleum Association of Wyoming
Professional Outfitters & Guides of Wyoming
Public Lands Council
Rocky Mountain Oil & Gas Association
Wyoming Heritage Society
Wyoming Outdoor Council
Wyoming State Grazing Board
Wyoming State Mineral & Gem Society
Wyoming Wool Growers Association

Businesses

5-Y Lumber Co.
91 Ranch
Altus Exploration Co.
Amerada-Hess
American Colloid Co.
American National Bank of Powell
Aminoil USA, Inc.
Amoco Production Co.
Antlers Ranch
Apache Corp.
Atlantic Richfield Co.
Armpit Grotto
Bass Enterprises Production
Bear Creek Ranch
Beard Oil Co.
Belnorth Petroleum Corp.
Bennette Creek Sheep and Cattle Co
Big Chief Exploration
Biota Research & Consulting
Black Bros.
Black Hawk Exploration
Bronco Oil & Gas Co.
Buckhorn Petroleum Co.
Carl Ballinger Estate
Cenex
Champlin Petroleum Co.
Chevron Exploration & Production
Chevron USA, Inc.
Cody Lumber Co.
Conoco, Inc.
Cork Petroleum Co.
Crescent Oil and Gas Corp.
Dale Weaver, Inc.
Dan Brown Trucking
Davis Oil Co.
EMC Energies Inc.
EMCOR Petroleum Inc.
Environmental Mgmt. Services Co.
Equity Oil Co.
Excel Energy Corp.
Exxon Co. USA
Frontier Archaeology
Fuel Exploration Inc.
Goldmark Engineering Inc.
Grabbert Ranch Co.
Grace Petroleum Co.
H&M Land Co.
Hrubetz Oil Co.
Hunt Oil Co.
Kiska Oil Co.
Marathon Pipeline Co.
McCullough Peaks Partners
Meridian Land & Mineral Co.
Mesa Petroleum Co.
Milestone Petroleum
Minerals Exploration Coalition
Mobil Oil Corp.
Mooncrest Ranch
New Frontier Exploration
Noranda Exploration
Pacific Power & Light Co.
Pathfinder Energy Inc.
Phillips Petroleum
Pitchfork Ranch Co.
Ralph Wortham Construction
Rhodes Ranch
Shell Oil Co.
Striker Petroleum Corp.
Switchback Ranches
Tenneco
Texaco, Inc.
The Brinkerhoff Co.
The Pace Co.
The Valley Center/Valley Ranch
Tri-State Generation & Transmission Association, Inc.
Triangle X Ranch
Trigg Oil and Mining
True Oil Co.
Union Texas Petroleum
Viking Exploration
Willwood Irrigation District
Winninger Ranch
YX Ranch

Individuals

Dr. Philip Gingerich
Lewis, Mark R.
Model, Robert
Nielson, Jim
Quintiliani, Bernard
Schmalz, Donald C.
Schultz, Ernest
Schultz, Robert W.
Siggins, Alan L.
Siggins, Kendall C.
Sowerwine, Elbert O.
Tilden, Sam
Tippets, Laraine E.

COMMENTS AND RESPONSES

Introduction

There are two major sections of the BLM's responses to public comments in this section: (a) general responses covering areas of concern mentioned in several comments and (b) responses to comments received in individual letters.

Certain areas of concern were mentioned in several comments. To avoid repetition and fragmentation of discussion of these issues, we have included a section of "general responses" before the individual letters are reproduced, with responses to comments in those letters. The general responses will be referred to as necessary in the responses to individual comments.

General Responses

1: Planning Tiers

Many commenters suggested changes to the RMP/EIS that are inappropriate for this stage of the BLM planning process. Some comments suggested courses of action for the RMP that were inconsistent with the policy tier; others suggested including a level of detail that is reserved for the more site-specific activity planning tier.

The BLM planning process is divided into three distinct tiers. Each subsequent tier builds on the base established by the previous one. The tiers are as follows:

> The *policy tier* identifies goals, objectives, priorities, and other factors for use in managing the public land resource. Policy is established in public laws, regulations, executive orders, court orders, guidance from BLM state directors, and approved documents issued by the President, the Secretary of the Interior, or the Director of the BLM.
>
> The *resource management plan tier* establishes in a land use plan the combinations of land uses and resource uses, related levels of investment and production or protection to be maintained, and general management practices and constraints for the various uses of the public lands. This RMP/EIS is a part of the resource management plan tier.
>
> The *activity plan and implementation tier* provides for evaluation and authorization of public land uses and the development of activity plans that are much more detailed, more site specific, and more limited in scope than the resource management plan tier. The main goal of the activity plan and implementation tier is to implement the RMP. This is initiated as necessary after an RMP is completed. An activity plan or use authorization shows in detail how particular actions or projects are to be carried out site-specifically, either to accomplish objectives of the RMP or to be consistent with objectives of the RMP.

The approved Cody RMP must be consistent with established BLM policy. Courses of action that are inconsistent with policy, laws, and regulations cannot be included in the approved RMP.

The RMP tier of the BLM's planning system is designed to allocate the various public land and resource uses and to establish the general framework to guide their management. RMPs establish general objectives, allocations, and actions for resource management without prescribing the site-specific details of how they will be accomplished. (More detail and site specificity on accomplishing the general guidance in the RMP is developed in the activity plan tier.)

Activity plans refine the general RMP decisions and provisions. Activity plans include individual projects, stipulations, schedules, priorities, and detailed resource monitoring requirements. Some types of activity plans that would be developed or revised after approval of the RMP are HMPs, RAMPs, forest management plans (FMPs), AMPs, cultural resource management plans, and watershed management plans. Other types of activity plans are evaluations and analyses related to issuance of use authorizations for such things as timber sales and applications for permit to drill (APDs). Site-specific consideration of land exchanges and other disposal actions is another example of activity planning.

RMPs are prepared within "real-world" funding and workforce constraints that do not allow us to have complete, detailed knowledge of every resource management situation. Over a large and diverse planning area, each situation that is encountered is unique, and management actions must be based on site-specific information. Therefore, the first order of business in activity planning often is to conduct inventories to fill data gaps or to refine our knowledge of the task at hand.

Environmental analyses will be carried out during development of activity plans. Public involvement in activity planning will be actively solicited as appropriate.

The RMP/EIS and approved RMP documents that are published and distributed to the public are not encyclopedic; that is, they do not include copies of all laws, regulations, policy or other source and reference materials pertinent to or used in their development. These types of materials are readily available from offices of the BLM or other federal agencies, state and local government agencies, or public libraries.

Published RMP/EIS documents do not contain all the information and analysis generated in conducting the planning process. This type of "planning record" documentation is part of the management situation analysis that is developed for each RMP and is on file at the appropriate BLM office (for example, the Cody Resource Area office). Members of the public may see the management situations analysis documentation upon request.

2: Content of the RMP/EIS

Many comments suggested that we include additional analysis or background information on the existing environment in the document. We have included the suggested information in the proposed RMP/final EIS where we determined that it was appropriate for the RMP tier of the BLM planning system (see general response 1) and that it was pertinent to the analysis or would help us to clarify reasoned choices among the alternatives. If this was not the case, the information was not included in the final document.

The potential effects on various environmental components were carefully considered. If we determined that there would be no effect on a particular environmental component, it was not discussed in detail in the document.

An EIS is intended to be analytic in nature, not encyclopedic. The intent of chapter 3 in the draft document is to describe the environmental components that would be affected by implementation of the RMP alternatives. Some other information is presented in that chapter to give a general overview of the resource. Information that is not necessary for an understanding of the analysis of the environmental consequences of the alternatives considered should not be included in the description of the affected environment. For this reason, the RMP/EIS does not contain a description of the total existing environment of the planning area.

3: Management of the Clarks Fork of the Yellowstone River and the Clarks Fork Canyon Area

Many commenters were concerned with management of public lands at the mouth of the Clarks Fork Canyon and the Clarks Fork of the Yellowstone River. Several comments recommended that the BLM place special management emphasis on the area through designation as an ACEC, an outstanding natural area, or a wild and scenic river. Many of these comments recommended that oil and gas leasing be prohibited in this area and that severe restrictions be placed on other activities. On the other hand, the state of Wyoming has recommended management that would preserve future opportunities for water resources development.

Clarks Fork of the Yellowstone River

A study was made of about 6 miles of the Clarks Fork of the Yellowstone River that passes through BLM-administered lands downstream of the boundary of the Shoshone National Forest. That part of the river is not eligible for inclusion in the National Wild and Scenic Rivers System (NWSRS). (New table 1 lists the criteria for wild and scenic rivers.) With the exception of about 40 acres contiguous to the Shoshone National Forest, the BLM-administered lands begin about 1½ miles downstream from the forest boundary. The 40 acres contiguous to the national forest contain outstanding scenic and historic values, including portions of the Nez Perce trail. However, the Forest Service studied this segment for inclusion in 1979, and that agency did not propose the segment for designation (see page 177 of the draft RMP/EIS).

If a river has been determined to be eligible and suitable for inclusion, Congress can designate a buffer of ¼ mile on either side of the river as part of the NWSRS. However, BLM-administered public lands 1½ miles downstream from the forest boundary do not contain outstanding values within ¼ mile of the river, nor do these lands contain outstanding values at a greater distance that could be better managed if the river was included in the NWSRS.

Under the proposed plan, management of the river tracts would include "no surface occupancy" (NSO) restrictions on more than 2,800 acres of fishing and hunting access lands that would be managed in cooperation with the WGFD. These lands on the Clarks Fork of the Yellowstone River comprise a sizable portion of the total fishing and hunting access lands in the planning area (see page 11 of the draft RMP/EIS).

Clarks Fork Canyon

Some commenters suggested that the mouth of the Clarks Fork Canyon be designated an ACEC or an outstanding natural area so that its outstanding scenic values would be emphasized. (Under existing BLM guidance, outstanding natural areas and research natural areas would not be designated by those terms; rather, they would be covered by the more general "ACEC" designation.) In addition to scenic values, the Clarks Fork Canyon area contains crucial winter habitat for big game, peregrine falcon recovery habitat, and historic values associated with the Nez Perce Trail. We have studied about 3,800 acres in the canyon area to determine its eligibility for ACEC designation. As we have documented in appendix J to this document, the area did not meet the criteria for importance necessary for designation as an ACEC.

Under the proposed plan, surface-disturbing activities would be prohibited in virtually all the lands considered for ACEC designation in the Clarks Fork Canyon area on the basis of the 25% slope limitation (see page 11 of the draft RMP/EIS). Parts of the area would be subject to NSO and seasonal restrictions to protect peregrine falcon recovery habitat and big game crucial ranges.

The area also would be managed to maintain existing VRM class II objectives. This would necessitate selective placement of any surface-disturbing activity so that scenic quality would not be impaired.

Management of the Clarks Fork Canyon and Clarks Fork River areas also would be affected by the Rivers SRMA. The objective of this SRMA would be to manage recreational use to maintain the existing natural and scenic characteristics of the Clarks Fork of the Yellowstone River and to maintain or improve access for public recreation on that river and on the North and South forks of the Shoshone River. An activity plan would be prepared for the SRMA after completion of the RMP.

4: Development in Proposed ACECs

Many comments revealed a lack of understanding of the reasons for designating an area an ACEC. Some commenters apparently believe ACECs should be managed like wilderness areas, with all or most forms of development prohibited. We hope that the addition of appendix J to this final document will clarify the procedure and purpose for ACEC designation.

The criteria for determining whether an area should be managed as an ACEC are discussed in appendix J. They include consideration of whether the area contains unique resources and values that, singly or in combination, make the area special. However, an area also may be designated an ACEC because of hazards. Thus, an ACEC is not necessarily a pristine, roadless area with scenic beauty or wilderness characteristics. An example of a designated ACEC that is unlike a wilderness is the Salt Creek Oilfield in the BLM's Casper District. In that area, emphasis is placed on concerns for overland runoff that could cause salinity, sedimentation, and contamination of surface waters.

ACEC designation alone does not indicate a particular type of management for an area; rather, the designation results in management emphasis and in priority for the funding of management requirements in an ACEC. The management practices for a particular ACEC usually are prescribed in detail in a site-specific activity plan for the area.

The proposed plan states our intention to manage five proposed ACECs to emphasize and protect unique land and resource values: rare plants and alpine tundra, wildlife habitat, unique caves, and scenic, geological, and recreational values. Appendix J contains descriptions of the land and resource values in the proposed ACECs.

Management of the proposed ACECs for these values would include the use of restrictions developed from the Wyoming BLM standard mitigation guidelines for surface-disturbing activities (see appendix B). NSO and seasonal restrictions would be applied as indicated in table 4 of the draft RMP/EIS and in the proposed plan in chapter 2 of this document. The designated ACECs also would be closed to future location of mining claims, and the construction of new rights-of-way would be avoided in all five proposed ACECs. ORV use would be limited to designated roads and trails.

These and other levels of restrictions were analyzed in the draft RMP/EIS. On the basis of the analyses, land use restrictions were identified that would adequately protect or enhance significant and unique land and resource values in the proposed ACECs. Further restrictions were not proposed. Such restrictions would have unduly constrained or prohibited legitimate land uses without benefiting the values of concern.

5: Multiple Use

A number of letters were received that asserted that the preferred alternative would allow "nearly uncontrolled oil and gas development, livestock grazing, and ORV use," or words to that effect. Most of these letters urged that we prohibit or severely restrict these types of land use and other surface-disturbing activities. One commenter sent a copy of a newsletter, *Ecoaction*, which contained similar thoughts.

The preferred alternative in the draft RMP/EIS represents the BLM's attempt to protect or allow prudent use of important resources without unnecessarily prohibiting or excessively constraining other land or resource uses. The prohibition of oil and gas development in the planning area would not reasonably provide for multiple use of the public lands, nor would prohibition or excessive restriction of ORV use and other major land uses.

As much as possible, the BLM tries to facilitate the coexistence of potentially conflicting land and resource uses. Existing laws provide considerable protection for certain resources for which several writers expressed concern; for example, the Endangered Species Act of 1973 provides for protection of threatened or endangered plant and animal species. BLM personnel work with the WGFD and the USFWS in planning the management of important wildlife habitat.

Existing laws, regulations, and policies provide considerable protection for cultural resources.

Cultural inventories and mitigation are required on public surface before surface-disturbing activities can be authorized; therefore, such activities can result in the discovery and protection of cultural sites. In addition, inventories usually are required before land sales and right-of-way actions. BLM personnel work with the Wyoming State Historic Preservation Officer and the Advisory Council on Historic Preservation in planning management of cultural resources on BLM-administered public land.

6: WGFD Population Objectives

Several commenters noted that projected big game populations would be below WGFD population objectives in some areas under the preferred alternative. The BLM attempts to manage big game habitat to support WGFD population objectives. However, during our analysis we found that in some cases even if we prohibited all livestock grazing and other consumptive uses of vegetation, the range would not support the numbers of wildlife specified by WGFD population objectives.

Realistically, we will not prohibit all livestock grazing and other vegetative uses on the public lands. However, we will make adjustments in livestock and other uses, where appropriate, on the basis of range monitoring data. A preliminary evaluation indicates that the WGFD population objectives may be inconsistent with current range conditions. We are cooperating with the WGFD in evaluating this situation.

Letters Received, and Responses

Introduction

The comment letters we received are listed in new table 2. The letters were numbered in the order in which they were received. The table shows the letter number, name of person or organization from whom the letter came, and the subjects covered. (Through an error in numbering and filing, one letter was counted twice, the second time as letter 88. This error was discovered too late to renumber all the remaining letters; therefore, there is no "letter 88.")

NEW TABLE 2

COMMENTS RECEIVED AND TOPICS ADDRESSED

Note: All comments received are listed. Numbers indicate the order in which the letters were received.

Key to Topic Codes: ACEC = areas of critical environmental concern; AIR = air quality; CR = cultural resources/natural history; F = forestlands; FM = fire management; HW = hazardous waste; LAN = lands and realty management/access; LGM = livestock grazing management; MIN = geology, minerals, and paleontology/restrictions on surface-disturbing activities.; NS = no specific comment, no response required; ORV = off-road vehicles; PEO = general planning/errors/omissions; REC = recreation/caves/wild and scenic rivers; RIP = riparian areas; S/W = soils/watershed/water quality/development; VEG = vegetation/rare plants; VR = visual resources; W/F = wildlife and fish habitat; WH = wild horses.

Letter Number	Name of Organization or Individual Commenting	Topic(s) Addressed
1	William Cochran, USDI, Bureau of Mines	MIN
2	Jeannine R. Stallings, Wyoming Advocates For Animals	WH
3	Arne G. Sandberg, Northwest Wyoming Resource Council	PEO,ACEC,MIN,HW,LAN,REC,S/W,VR,WH,W/F
4	Mark Pearson	PEO,ACEC,CR,MIN,LGM,ORV,REC
5	Kirk Koepsel	PEO,ACEC,MIN
6	R. G. Starkey, USDI, Fish and Wildlife Service	ACEC,LAN,LGM,VEG,RIP,W/F
7	Frank S. Dickson, USDA, Soil Conservation Service	LGM,VEG
8	Millard J. Smith, M.D.	LAN,REC
9	Bernie Hall, The Nature Conservancy	ACEC,MIN,LGM,REC,S/W,VEG,RIP
10	Press Stephens	ACEC,MIN,LAN,ORV,REC,VR
11	John P. Scheltens, National Speleological Society, Inc.	PEO,ACEC,REC,S/W
12	Archie Zacharias	LGM,VEG,WH
13	Arvid L. Thomsen, USDOA, Corps of Engineers	PEO,ACEC,CR,MIN
14	Jim Allen, Allen Bros. Wilderness Outfitting & Guiding	MIN,ORV
15	James M. Welch, Frontier Archaeology	CR
16	Robert Schroeder, USDI, Bureau of Reclamation	LAN
17	Lynne Chadwick, DVM	RIP
18	John A. Miller, Department of the Air Force	PEO
19	Richard A. Strait, USDI, National Park Service	PEO,ACEC,AIR,CR,MIN,LAN,LGM,ORV,REC,S/W,VR,RIP,W/F
20	Richard K. Brown, Wyo-Ben, Inc.	PEO,ACEC,MIN,VR

NEW TABLE 2 (Continued)

COMMENTS RECEIVED AND TOPICS ADDRESSED

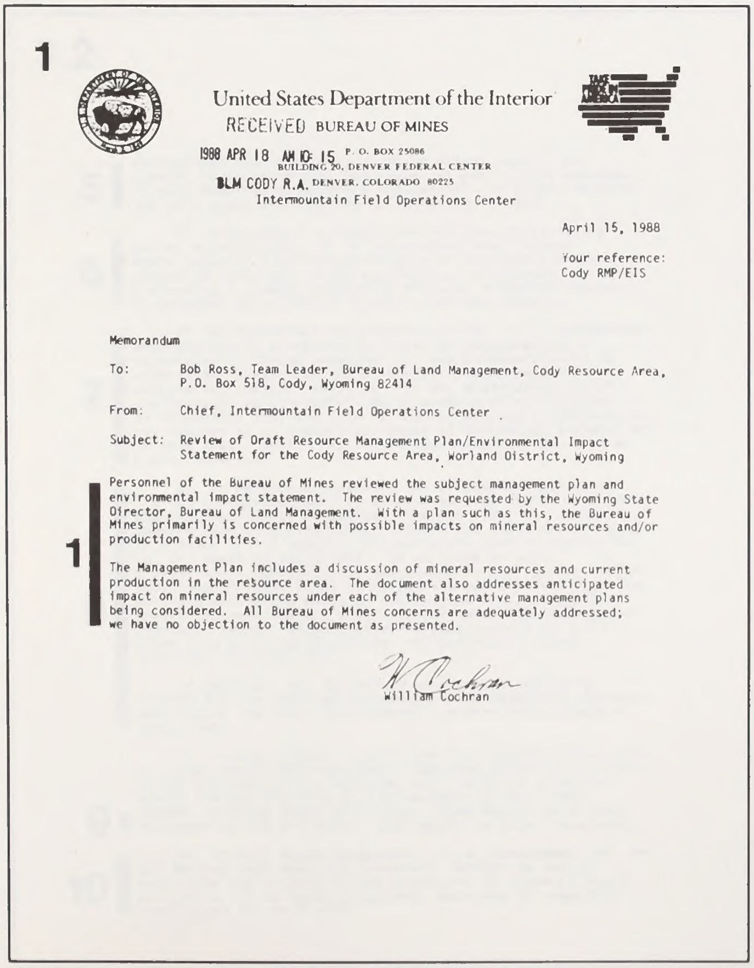
Letter Number	Name of Organization or Individual Commenting	Topic(s) Addressed
21	R. G. Starkey, USDI, Fish and Wildlife Service	ACEC,REC,VEG,W/F
22	J. R. Kearns, Marathon Oil Company	ACEC,CR,MIN,LAN,S/W,VEG,RIP,W/F
23	James Fosburgh, American Rivers	PEO,REC
24	Virginia Burris	ACEC,F,MIN,LGM,ORV,RIP,W/F
25	Gene Bull	CR,MIN,ORV
26	Hat McGee	NS
27	Hope B. Stevens, Robert T. Stevens, Jr.	PEO,REC
28	Helen H. Day	MIN,LGM,ORV,REC
29	Kenneth K. Baldwin	REC
30	Naomi Fink	ACEC,MIN,LGM,ORV,RIP,W/F
31	E. S. Twiving Sr.	MIN,LGM,ORV,RIP,W/F
32	Caroline Byrd	ACEC,F,MIN,LGM,ORV,RIP,W/F
33	Kenneth J. Koop	ACEC,MIN,LGM,ORV
34	Scott Ploger	ACEC,F,MIN,LGM,ORV,RIP,W/F
35	Jim Stoltz	ACEC,MIN,LGM,ORV,RIP,W/F
36	Elizabeth Sue Willey Cook	MIN,LGM,ORV,RIP
37	H. G. George	MIN,F,W/F
38	Ruth W. Zeller, Robert O. Zeller	MIN,LGM,ORV,REC,RIP
39	Margaret E. Murie	MIN
40	Edward McGarrity	ACEC,F,MIN,LGM,ORV,W/F
41	Ted Kerasote	MIN,LGM,ORV,REC,W/F
42	Daniel and Donna Roach	MIN,LGM,ORV
43	Frank M. Gillingham	ACEC,MIN,LGM,ORV,W/F
44	John R. Swanson	PEO,REC,MIN,S/W,W/F
45	Dave and Laurn Naslund	ACEC,MIN,LGM,ORV,REC,RIP,W/F
46	Julia McGregor	PEO,MIN,W/F,LGM,ORV,REC
47	Joyce B. Lohse	F,MIN,LGM,ORV,REC,W/F
48	Lee Nellis	ACEC,MIN,ORV,W/F
49	Todd J. Herreid	MIN,W/F
50	R. Carey Gersten	CR,MIN,LGM,ORV,RIP,W/F
51	S. Hollos	REC
52	S. J. Greenberg	MIN,LGM,ORV,RIP,W/F
53	Peter Bennett	ACEC,MIN,LGM,ORV,REC,RIP,W/F
54	Robert A. Mize	ACEC,MIN,LGM,ORV,REC,RIP,W/F
55	John R. Wullich	ACEC,F,MIN,LGM,ORV,REC,W/F
56	Wendy H. Frueauf, Petroleum Association of Wyoming	PEO,ACEC,MIN,RIP,W/F
57	F. Z. Woodward, CGG American Services, Inc.	CR,F,REC,W/F
58	G. Gregory Francis, Celsius Energy Company	ACEC,MIN,HW,W/F
59	Robert R. DeSpain, USEPA	PEO,ACEC,MIN,LAN,LGM,S/W,VEG,RIP
60	George T. Stone	CR,MIN,REC
61	Leslie Stempel	NS
62	Diana L. Plahn, D.D.S.	ACEC,CR,MIN,LGM,ORV,RIP,W/F
63	David Price	CR,F,MIN,LGM,ORV,S/W,RIP,W/F
64	R. Schmeidt, M.D.	ACEC,MIN,LGM,ORV
65	Robert P. Lout	MIN,REC
66	Greg Western	F,MIN,LGM,ORV
67	Elliot Schildkrout	MIN,LGM,ORV
68	John Zelazny, Wyoming Wildlife Federation	PEO,ACEC,FM,F,MIN,HW,LAN,LGM,ORV,S/W,VEG,RIP,W/F
69	Larry Mehlhaff, Sierra Club	PEO,ACEC,F,MIN,LGM,VR,W/F
70	Dick Loper, Wyoming State Grazing Board	LGM,S/W,VEG,RIP,W/F
71	Richard D. Goddard, Exxon Company, U.S.A.	ACEC,MIN,HW
72	Jess Cooper, Rocky Mountain Oil & Gas Association	PEO,ACEC,MIN,HW,W/F
73	D. S. Gardner, M-I Drilling Fluids Co.	ACEC,MIN,VR
74	John B. Sutherland	ACEC,MIN,LGM,ORV
75	Terry Lambert	REC,W/F
76	Daniel Silver, M.D.	PEO,W/F,ORV,LGM,RIP,REC
77	Mike Sullivan, Governor, State of Wyoming	LAN,RIP,W/F,S/W,LGM,MIN,ACEC,NS,PEO
78	John W. Jackson, Water Development Commission	PEO,RIP,S/W,VR,REC,S/W
79	Jon F. Jacquot, Public Service Commission	PEO,LAN,W/F,CR
80	Thomas E. Marceau, SHPO, Wyoming State Archives	CR
81	Sue Lowry, Wyoming State Engineer's Office	S/W,RIP
82	Gary B. Glass, Geological Survey of Wyoming	PEO,ACEC,MIN,LAN,W/F,REC,S/W,CR,LGM
83	Randolph Wood, Department of Environmental Quality	S/W,W/F
84	Bill Morris, Wyoming State Game & Fish Department	PEO,W/F,RIP,MIN,LAN,FM,F,LGM,ORV,REC,S/W,LAN
85	Francis Petera, Wyoming State Game & Fish Department.	LGM,RIP,S/W
86	Dee Oudin	REC,W/F,ACEC,S/W,LGM,ORV,LAN,MIN,PEO
87	L. Bryant Williams, Jr., Exxon Company, U.S.A.	MIN,W/F,ACEC

NEW TABLE 2 (Continued)

COMMENTS RECEIVED AND TOPICS ADDRESSED

Letter Number	Name of Organization or Individual Commenting	Topic(s) Addressed
88	Because of an oversight, we do not have a Letter No. 88	
89	Jean Foor	MIN,LGM,F
90	Mary Ellen Shoemaker	MIN,LGM,ORV,ACEC,RIP
91	Mary Ziegenhagen	MIN,LGM,ORV
92	Elizabeth Stevenson	MIN,LGM,ORV,ACEC
93	Lisa Mercier, Chevron U.S.A., Inc	W/F,MIN,LAN,ACEC
94	Neil W. Allen, Amoco Production Company	MIN,W/F,PEO
95	Alan Edwards, Office of the Governor of Wyoming	NS
96	Paul Cleary, Wyoming State Land & Farm Loan Board	PEO,ACEC,MIN,LAN
97	John M. Bugas	ACEC,MIN,ORV
98	Thomas H. Wiancko	PEO,W/F,VEG,REC
99	Sandra C. Cahill	PEO,W/F,CR,F,REC
100	Julie Holding	PEO,MIN,W/F,ORV,REC
101	Harry E. Wilson	ORV,ACEC
102	Sterling Evans	PEO,MIN,F,ORV,CR,RIP,ACEC,REC,W/F,WH,LGM,S/W

The letters we received are reproduced in the following pages. Some handwritten letters have been typed verbatim to improve readability or to save space. Numbers have been inserted on each letter to identify individual comments, and correspondingly numbered responses to the comments follow each letter. When several consecutively numbered letters contain similar comments and concerns, those letters are reprinted as a group and one response is given following the group of letters.



1

United States Department of the Interior
RECEIVED BUREAU OF MINES
1988 APR 18 AM 10: 15 P. O. BOX 25086
BUILDING 20, DENVER FEDERAL CENTER
BLM CODY R.A. DENVER, COLORADO 80225
Intermountain Field Operations Center

April 15, 1988

Your reference:
Cody RMP/EIS

Memorandum

To: Bob Ross, Team Leader, Bureau of Land Management, Cody Resource Area, P.O. Box 518, Cody, Wyoming 82414

From: Chief, Intermountain Field Operations Center

Subject: Review of Draft Resource Management Plan/Environmental Impact Statement for the Cody Resource Area, Worland District, Wyoming

1 Personnel of the Bureau of Mines reviewed the subject management plan and environmental impact statement. The review was requested by the Wyoming State Director, Bureau of Land Management. With a plan such as this, the Bureau of Mines primarily is concerned with possible impacts on mineral resources and/or production facilities.

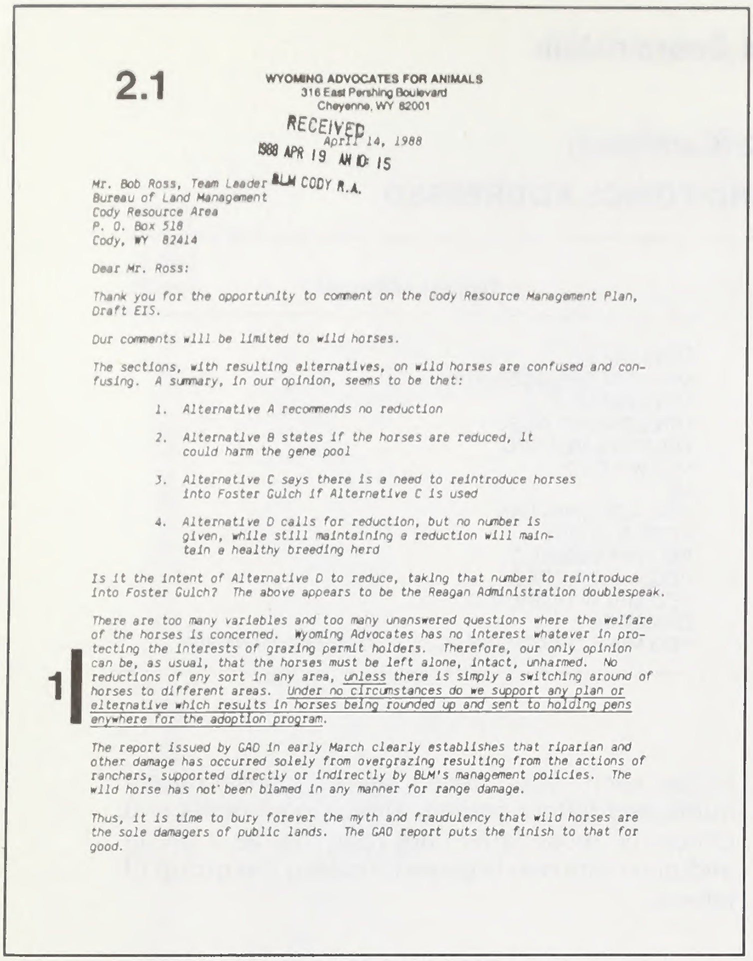
The Management Plan includes a discussion of mineral resources and current production in the resource area. The document also addresses anticipated impact on mineral resources under each of the alternative management plans being considered. All Bureau of Mines concerns are adequately addressed; we have no objection to the document as presented.

W Cochran
William Cochran

Response to Letter 1

1. Thank you for your comments.

2.1



WYOMING ADVOCATES FOR ANIMALS
316 East Pershing Boulevard
Cheyenne, WY 82001

RECEIVED
1988 APR 19 AM 10 15
BLM CODY R.A.

April 14, 1988

Mr. Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P. O. Box 518
Cody, WY 82414

Dear Mr. Ross:

Thank you for the opportunity to comment on the Cody Resource Management Plan, Draft EIS.

Our comments will be limited to wild horses.

The sections, with resulting alternatives, on wild horses are confused and confusing. A summary, in our opinion, seems to be that:

1. Alternative A recommends no reduction
2. Alternative B states if the horses are reduced, it could harm the gene pool
3. Alternative C says there is a need to reintroduce horses into Foster Gulch if Alternative C is used
4. Alternative D calls for reduction, but no number is given, while still maintaining a reduction will maintain a healthy breeding herd

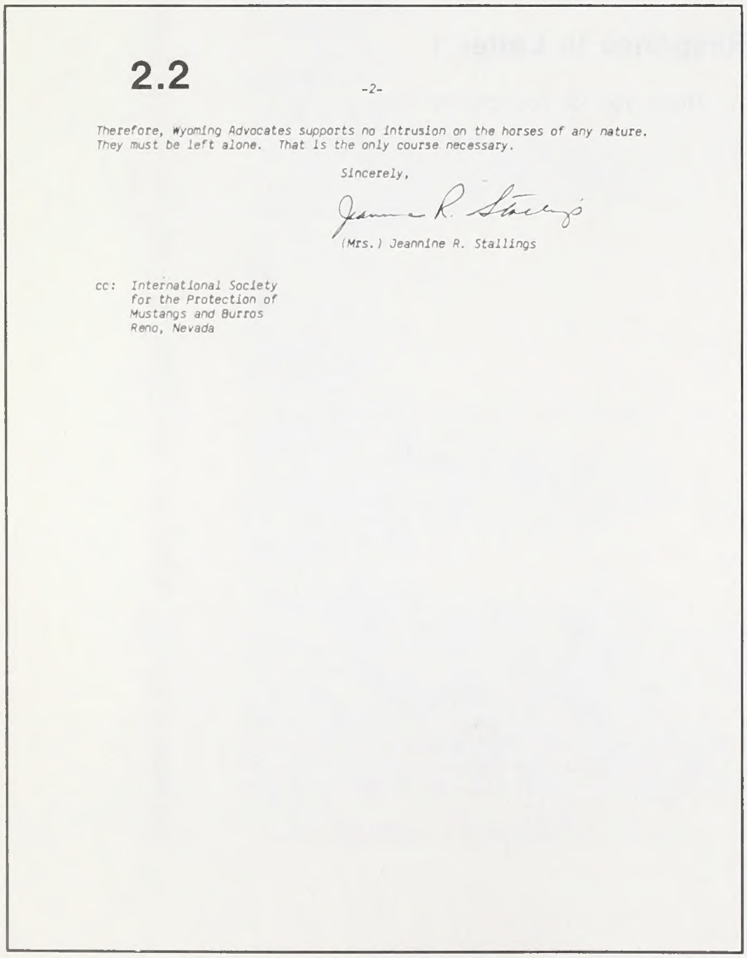
Is it the intent of Alternative D to reduce, taking that number to reintroduce into Foster Gulch? The above appears to be the Reagan Administration doublespeak.

There are too many variables and too many unanswered questions where the welfare of the horses is concerned. Wyoming Advocates has no interest whatever in protecting the interests of grazing permit holders. Therefore, our only opinion can be, as usual, that the horses must be left alone, intact, unharmed. No reductions of any sort in any area, unless there is simply a switching around of horses to different areas. Under no circumstances do we support any plan or alternative which results in horses being rounded up and sent to holding pens anywhere for the adoption program. 1

The report issued by GAO in early March clearly establishes that riparian and other damage has occurred solely from overgrazing resulting from the actions of ranchers, supported directly or indirectly by BLM's management policies. The wild horse has not been blamed in any manner for range damage.

Thus, it is time to bury forever the myth and fraudulency that wild horses are the sole damagers of public lands. The GAO report puts the finish to that for good.

2.2



-2-

Therefore, Wyoming Advocates supports no intrusion on the horses of any nature. They must be left alone. That is the only course necessary.

Sincerely,

Jeannine R. Stallings

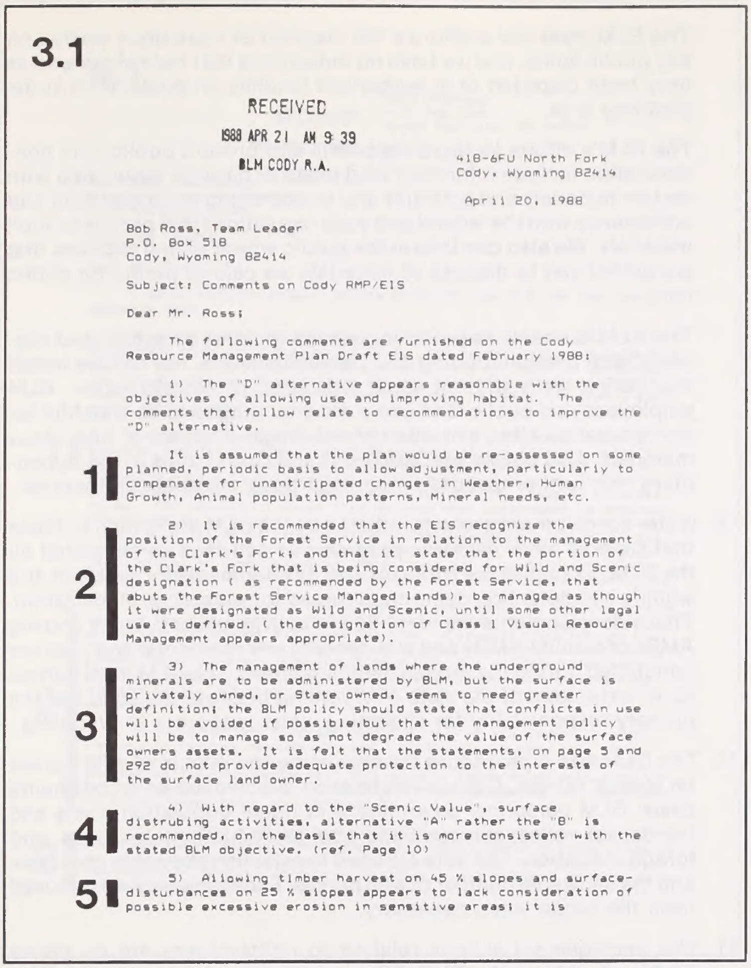
(Mrs.) Jeannine R. Stallings

cc: International Society
for the Protection of
Mustangs and Burros
Reno, Nevada

Responses to Letter 2

1. The proposed action does not include a recommendation for reduction of wild horse numbers, but roundups would be conducted periodically so that the total number of wild horses in the area would be controlled. As we indicated on page 207 of the draft RMP/EIS, about 100 horses are in the McCullough Peaks wild horse herd area at present. Under the proposed management plan, we would keep about this number of wild horses in the herd area.

   There are no wild horses in the Foster Gulch area now, and the proposed plan does not include reintroduction of wild horses to that area.



3.1

RECEIVED
1988 APR 21 AM 9 39
BLM CODY R.A.

418-6FU North Fork
Cody, Wyoming 82414

April 20, 1988

Bob Ross, Team Leader
P.O. Box 518
Cody, Wyoming 82414

Subject: Comments on Cody RMP/EIS

Dear Mr. Ross;

The following comments are furnished on the Cody Resource Management Plan Draft EIS dated February 1988:

1) The "D" alternative appears reasonable with the objectives of allowing use and improving habitat. The comments that follow relate to recommendations to improve the "D" alternative.

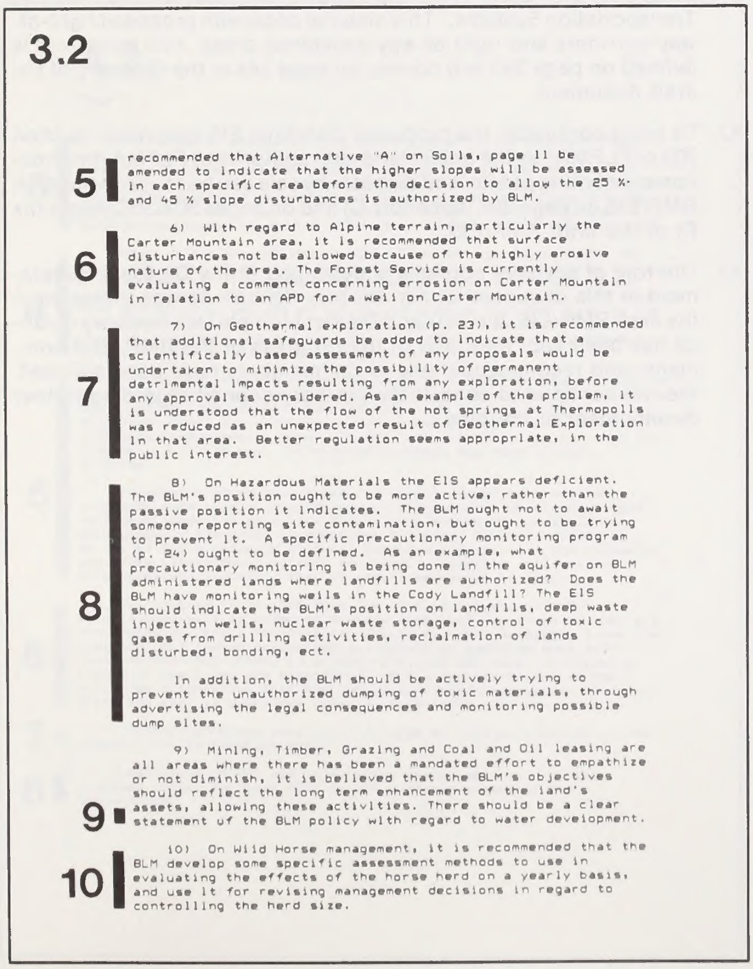
1 It is assumed that the plan would be re-assessed on some planned, periodic basis to allow adjustment, particularly to compensate for unanticipated changes in Weather, Human Growth, Animal population patterns, Mineral needs, etc.

2 2) It is recommended that the EIS recognize the position of the Forest Service in relation to the management of the Clark's Fork; and that it state that the portion of the Clark's Fork that is being considered for Wild and Scenic designation (as recommended by the Forest Service, that abuts the Forest Service Managed lands), be managed as though it were designated as Wild and Scenic, until some other legal use is defined. (the designation of Class 1 Visual Resource Management appears appropriate).

3 3) The management of lands where the underground minerals are to be administered by BLM, but the surface is privately owned, or State owned, seems to need greater definition; the BLM policy should state that conflicts in use will be avoided if possible,but that the management policy will be to manage so as not degrade the value of the surface owners assets. It is felt that the statements, on page 5 and 292 do not provide adequate protection to the interests of the surface land owner.

4 4) With regard to the "Scenic Value", surface distrubing activities, alternative "A" rather the "B" is recommended, on the basis that it is more consistent with the stated BLM objective. (ref. Page 10)

5 5) Allowing timber harvest on 45 % slopes and surface-disturbances on 25 % slopes appears to lack consideration of possible excessive erosion in sensitive areas; it is



3.2

5 recommended that Alternative "A" on Soils, page 11 be amended to indicate that the higher slopes will be assessed in each specific area before the decision to allow the 25 %- and 45 % slope disturbances is authorized by BLM.

6 6) With regard to Alpine terrain, particularly the Carter Mountain area, it is recommended that surface disturbances not be allowed because of the highly erosive nature of the area. The Forest Service is currently evaluating a comment concerning errosion on Carter Mountain in relation to an APD for a well on Carter Mountain.

7 7) On Geothermal exploration (p. 23), it is recommended that additional safeguards be added to indicate that a scientifically based assessment of any proposals would be undertaken to minimize the possibility of permanent detrimental impacts resulting from any exploration, before any approval is considered. As an example of the problem, it is understood that the flow of the hot springs at Thermopolis was reduced as an unexpected result of Geothermal Exploration in that area. Better regulation seems appropriate, in the public interest.

8 8) On Hazardous Materials the EIS appears deficient. The BLM's position ought to be more active, rather than the passive position it indicates. The BLM ought not to await someone reporting site contamination, but ought to be trying to prevent it. A specific precautionary monitoring program (p. 24) ought to be defined. As an example, what precautionary monitoring is being done in the aquifer on BLM administered lands where landfills are authorized? Does the BLM have monitoring wells in the Cody Landfill? The EIS should indicate the BLM's position on landfills, deep waste injection wells, nuclear waste storage, control of toxic gases from drilling activities, reclamation of lands disturbed, bonding, ect.

In addition, the BLM should be actively trying to prevent the unauthorized dumping of toxic materials, through advertising the legal consequences and monitoring possible dump sites.

9 9) Mining, Timber, Grazing and Coal and Oil leasing are all areas where there has been a mandated effort to empathize or not diminish, it is believed that the BLM's objectives should reflect the long term enhancement of the land's assets, allowing these activities. There should be a clear statement of the BLM policy with regard to water development.

10 10) On Wild Horse management, it is recommended that the BLM develop some specific assessment methods to use in evaluating the effects of the horse herd on a yearly basis, and use it for revising management decisions in regard to controlling the herd size.

Responses to Letter 3

1. The RMP will be in effect after a record of decision is issued. Thereafter, it can be changed in response to changing conditions. Minor modification and refinement of the plan that would not change planning decisions or the scope of the plan would be carried out routinely as new data were acquired. For other plan modifications such as changes in planning decisions, a plan amendment or plan revision might be required. Environmental analysis and public participation are required for plan amendments or revisions.

2. We believe that our present VRM class II objectives, combined with other restrictions in the area of the Clarks Fork of the Yellowstone River, would be sufficient to preserve the existing scenic quality of BLM-administered lands. Also please see general response 3.

3. Federal mineral leases on split-estate lands include requirements for reclamation of any nonfederal lands that are involved. Any effect on assets would be addressed in the damages or trespass agreement between the minerals operator and the landowner (a private contract in which the government takes no part). The standing BLM policy is basically as you have suggested. Through both federal and state statutes and regulations, the interests of the owners of nonfederal surface are adequately protected.

4. The ½-mile setback around portions of the Clarks Fork of the Yellowstone and Shoshone rivers and the North and South Forks of the Shoshone River was not selected in the preferred alternative for the draft RMP/EIS because it is redundant. For the most part, public lands within ½ mile of these rivers would be administered as "fishing and hunting access areas." Such areas already are subject to "no surface occupancy" and "no surface-disturbing activity" restrictions, as shown on page 11 of the draft RMP/EIS.

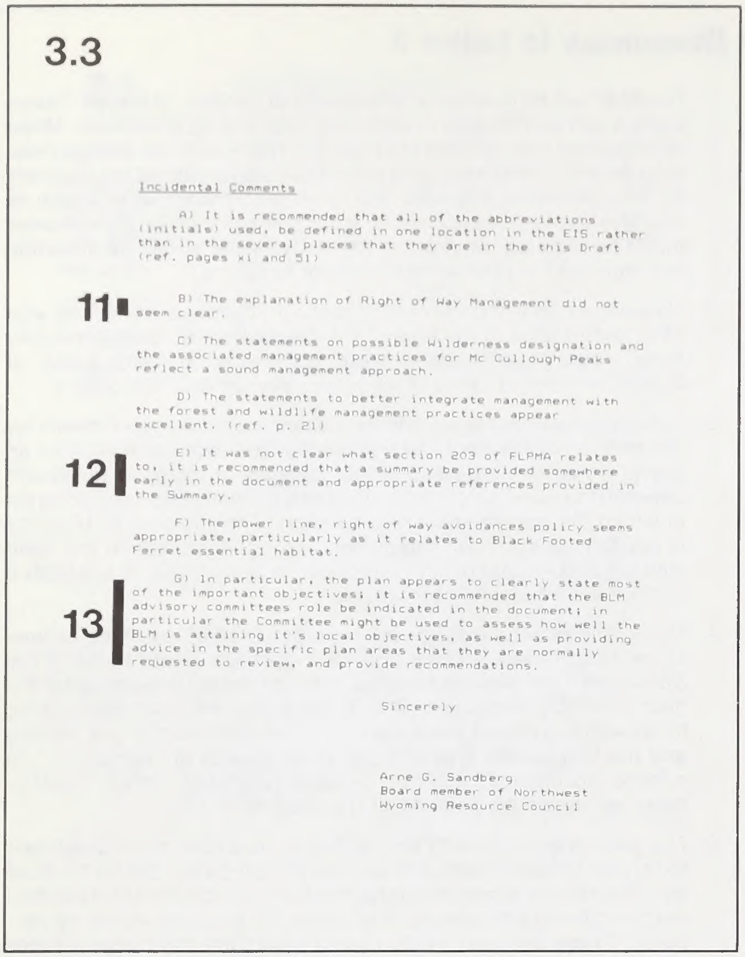
5. The general provisions to limit activities on slopes were developed to fit most anticipated situations in the planning area. Before the BLM would authorize a specific surface-disturbing activity or timber harvest, additional site-specific environmental analyses would be prepared. These analyses would assess environmental consequences such as soil erosion and the appropriateness of conducting activities on slopes. If unacceptable levels of soil erosion would result on slopes of less than 25% (less than 45% for timber harvests) then the proposed action may be denied, modified with other mitigative measures, and/or moved to a more acceptable location. These environmental analysis requirements are standard operating procedures for the evaluation of all proposed actions.

6. The proposed plan would prohibit surface-disturbing activities on slopes greater than 7%. This would have the effect of prohibiting disturbance on all but about 120 acres of the 7,819 acre proposed ACEC. New surface-disturbing activities generally would need to be located on areas already disturbed by a road, trail, or other previous use. Otherwise, access for proposed disturbances probably would require the use of a helicopter. This is because the slope restriction would make it difficult to build new roads for more than short distances.

   We will carefully consider the Forest Service's evaluation of alpine soil erodibility before authorizing any surface-disturbing activities on Carter Mountain.

7. Environmental analyses will be conducted on any area where geothermal exploration is proposed. This will include a scientific assessment of the possibility of permanent detrimental impacts. Additional regulation in the area of geothermal exploration or leasing is beyond both the authority of this office and the scope of the RMP.

8. The BLM observes all state and federal regulations pertaining to the use and disposal of hazardous materials. As to monitoring of hazardous materials, our statement on page 24 of the draft RMP/EIS is meant to indicate that BLM will monitor the authorized land users and the precautionary measures that they apply. These measures would be a required part of land use authorizations for any activity that could potentially involve hazardous materials or wastes. At present, operators are not required to develop monitoring wells at BLM-authorized landfills. The primary responsibility for regulating hazardous materials lies with the Environmental Protection Agency (EPA) and the Wyoming DEQ. Generally, these agencies would determine if and when monitoring wells would be required.



3.3

Incidental Comments

A) It is recommended that all of the abbreviations (initials) used, be defined in one location in the EIS rather than in the several places that they are in the this Draft (ref. pages xi and 51)

11 B) The explanation of Right of Way Management did not seem clear.

C) The statements on possible Wilderness designation and the associated management practices for Mc Cullough Peaks reflect a sound management approach.

D) The statements to better integrate management with the forest and wildlife management practices appear excellent. (ref. p. 21)

12 E) It was not clear what section 203 of FLPMA relates to, it is recommended that a summary be provided somewhere early in the document and appropriate references provided in the Summary.

F) The power line, right of way avoidances policy seems appropriate, particularly as it relates to Black Footed Ferret essential habitat.

13 G) In particular, the plan appears to clearly state most of the important objectives; it is recommended that the BLM advisory committees role be indicated in the document; in particular the Committee might be used to assess how well the BLM is attaining it's local objectives, as well as providing advice in the specific plan areas that they are normally requested to review, and provide recommendations.

Sincerely

Arne G. Sandberg
Board member of Northwest
Wyoming Resource Council

The BLM does not authorize the disposal of hazardous wastes on any public lands, and we have no indications that hazardous wastes have been disposed of in authorized landfills on public land in the planning area.

The BLM's efforts to serve the public and prevent public land contamination include informing land users of hazards associated with certain materials and activities and encouraging understanding and compliance with the federal and state regulations that pertain to such materials. We also can inform the public where to find facilities that are authorized to dispose of materials we cannot permit on public land.

The BLM is unable to patrol thousands of acres of public land regularly with present funding and personnel levels, nor can we install monitoring wells without some indication of contamination. BLM employees and public land users are encouraged to be watchful for contamination sites and attempts at illegal disposal of hazardous materials. Also please see "Additions and Corrections to the Appendixes" for further discussion on hazardous materials and wastes.

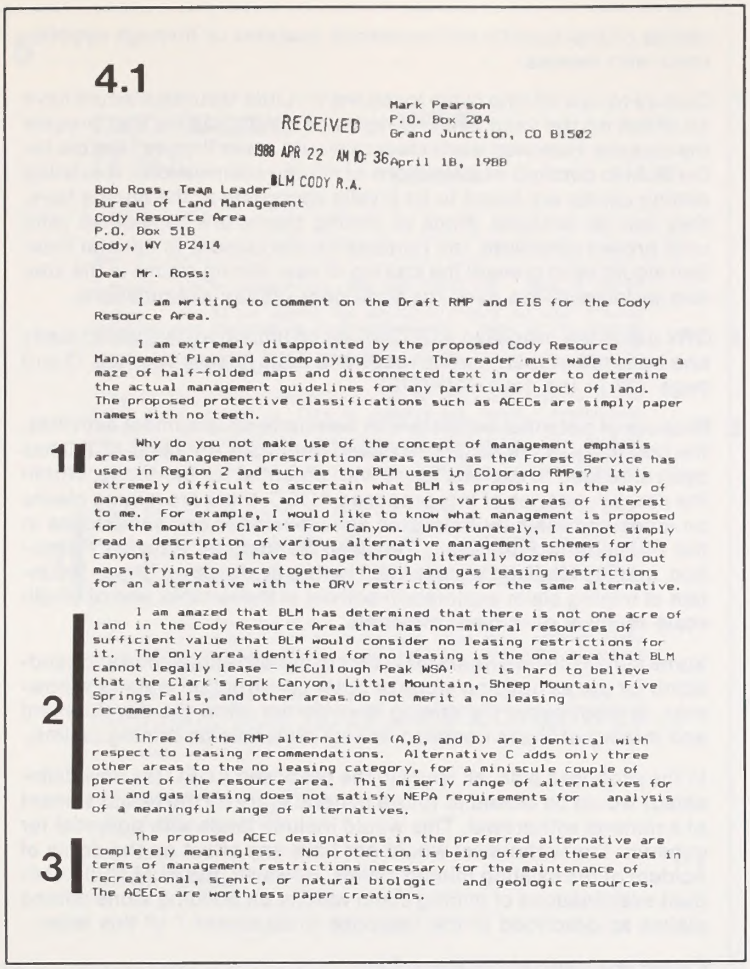
9. Water development projects initiated by the BLM are limited to those that support other resource programs or activities administered by the BLM. Examples are spring or well developments for livestock and wildlife and detention dams constructed for watershed stabilization. These developments are identified in activity plans such as grazing AMPs or wildlife HMPs and site-specific environmental analyses are conducted during the project planning phase. The BLM must adhere to all water laws of the state of Wyoming because the state has the primary responsibility for allocating water resources in Wyoming.

10. The BLM has a procedure for evaluating the effects of wild horses on federal ranges. Census information is compiled on a continuing basis: BLM personnel determine wild horse population levels and trends, sex ratios, average band size, reproduction, use areas, and forage utilization. The data are used to establish allowable use levels and the allowable number of wild horses. Excess horses are removed from the range when necessary.

11. The management actions relating to rights-of-way are on pages 27-29 of the draft RMP/EIS under the subheading "Utility/Transportation Systems." This material deals with proposed right-of-way corridors and right-of-way avoidance areas. *Avoidance area* is defined on page 343 and *corridor* on page 344 in the Glossary of the draft document.

12. To avoid confusion, the proposed plan/final EIS describes "section 203 of FLPMA" as the public land sale authority of FLPMA. Information concerning public land disposal by sale can be found in the draft RMP/EIS on page 296 (appendix C) and on pages 302-303 (appendix E) of the draft RMP/EIS .

13. The role of advisory councils is described in the Glossary Supplement in this document under *Advisory Council.* As was indicated in the draft RMP/EIS, the Worland District Multiple Use Advisory Council has been kept informed of the progress of the RMP, and comments and recommendations of the members have been solicited. We will continue to consult the advisory council regarding further development of the plan.



4.1

RECEIVED
1988 APR 22 AM 10: 36
BLM CODY R.A.

Mark Pearson
P.O. Box 204
Grand Junction, CO 81502

April 18, 1988

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

Dear Mr. Ross:

I am writing to comment on the Draft RMP and EIS for the Cody Resource Area.

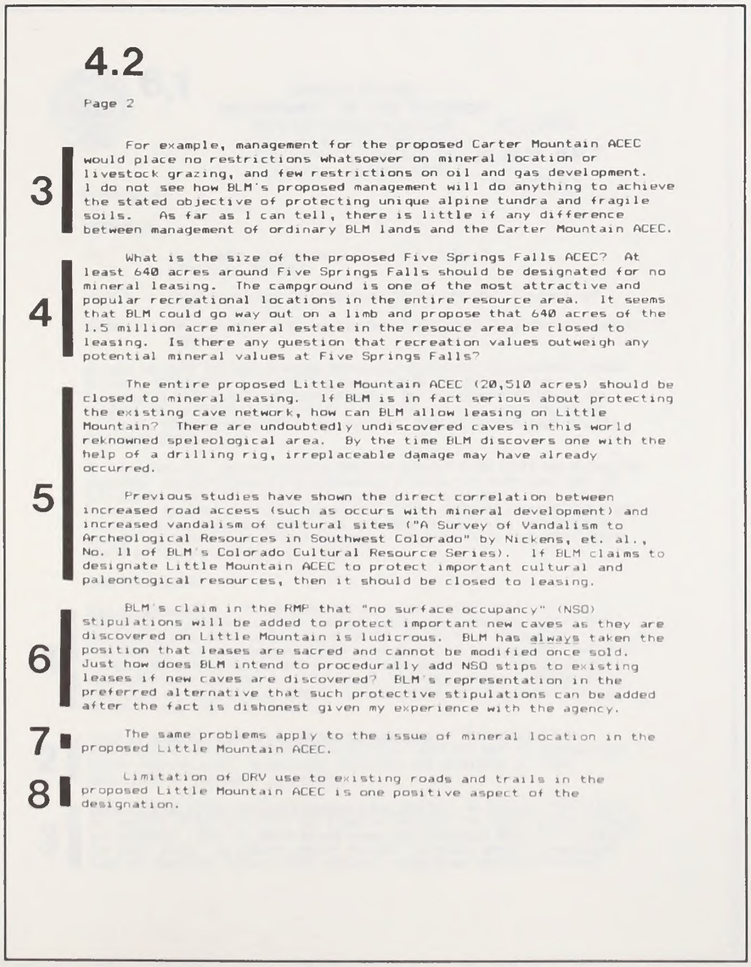
I am extremely disappointed by the proposed Cody Resource Management Plan and accompanying DEIS. The reader must wade through a maze of half-folded maps and disconnected text in order to determine the actual management guidelines for any particular block of land. The proposed protective classifications such as ACECs are simply paper names with no teeth.

1 Why do you not make use of the concept of management emphasis areas or management prescription areas such as the Forest Service has used in Region 2 and such as the BLM uses in Colorado RMPs? It is extremely difficult to ascertain what BLM is proposing in the way of management guidelines and restrictions for various areas of interest to me. For example, I would like to know what management is proposed for the mouth of Clark's Fork Canyon. Unfortunately, I cannot simply read a description of various alternative management schemes for the canyon; instead I have to page through literally dozens of fold out maps, trying to piece together the oil and gas leasing restrictions for an alternative with the ORV restrictions for the same alternative.

2 I am amazed that BLM has determined that there is not one acre of land in the Cody Resource Area that has non-mineral resources of sufficient value that BLM would consider no leasing restrictions for it. The only area identified for no leasing is the one area that BLM cannot legally lease - McCullough Peak WSA! It is hard to believe that the Clark's Fork Canyon, Little Mountain, Sheep Mountain, Five Springs Falls, and other areas do not merit a no leasing recommendation.

Three of the RMP alternatives (A,B, and D) are identical with respect to leasing recommendations. Alternative C adds only three other areas to the no leasing category, for a miniscule couple of percent of the resource area. This miserly range of alternatives for oil and gas leasing does not satisfy NEPA requirements for analysis of a meaningful range of alternatives.

3 The proposed ACEC designations in the preferred alternative are completely meaningless. No protection is being offered these areas in terms of management restrictions necessary for the maintenance of recreational, scenic, or natural biologic and geologic resources. The ACECs are worthless paper creations.



4.2

Page 2

3 For example, management for the proposed Carter Mountain ACEC would place no restrictions whatsoever on mineral location or livestock grazing, and few restrictions on oil and gas development. I do not see how BLM's proposed management will do anything to achieve the stated objective of protecting unique alpine tundra and fragile soils. As far as I can tell, there is little if any difference between management of ordinary BLM lands and the Carter Mountain ACEC.

4 What is the size of the proposed Five Springs Falls ACEC? At least 640 acres around Five Springs Falls should be designated for no mineral leasing. The campground is one of the most attractive and popular recreational locations in the entire resource area. It seems that BLM could go way out on a limb and propose that 640 acres of the 1.5 million acre mineral estate in the resouce area be closed to leasing. Is there any question that recreation values outweigh any potential mineral values at Five Springs Falls?

5 The entire proposed Little Mountain ACEC (20,510 acres) should be closed to mineral leasing. If BLM is in fact serious about protecting the existing cave network, how can BLM allow leasing on Little Mountain? There are undoubtedly undiscovered caves in this world reknowned speleological area. By the time BLM discovers one with the help of a drilling rig, irreplaceable damage may have already occurred.

Previous studies have shown the direct correlation between increased road access (such as occurs with mineral development) and increased vandalism of cultural sites ("A Survey of Vandalism to Archeological Resources in Southwest Colorado" by Nickens, et. al., No. 11 of BLM's Colorado Cultural Resource Series). If BLM claims to designate Little Mountain ACEC to protect important cultural and paleontogical resources, then it should be closed to leasing.

6 BLM's claim in the RMP that "no surface occupancy" (NSO) stipulations will be added to protect important new caves as they are discovered on Little Mountain is ludicrous. BLM has always taken the position that leases are sacred and cannot be modified once sold. Just how does BLM intend to procedurally add NSO stips to existing leases if new caves are discovered? BLM's representation in the preferred alternative that such protective stipulations can be added after the fact is dishonest given my experience with the agency.

7 The same problems apply to the issue of mineral location in the proposed Little Mountain ACEC.

8 Limitation of ORV use to existing roads and trails in the proposed Little Mountain ACEC is one positive aspect of the designation.

Responses to Letter 4

1. Although they are not called "management emphasis areas" or "management prescription areas," the Cody draft RMP/EIS proposes specific management actions for many discrete geographical units such as proposed ACECs, special recreation management areas (SRMAs), the McCullough Peaks wild horse herd area, black-footed ferret essential habitat, and peregrine falcon recovery habitat areas, to name a few. The future management objectives and actions for these areas for the protection of the resources and land uses identified are described clearly in the draft RMP/EIS.

   For information on the Canyon of Clarks Fork of the Yellowstone, please see general response 3.

2. The areas that you mention would be covered all or in part by NSO restrictions for oil and gas exploration and development and by prohibitions against other types of surface-disturbing activities. In addition, many other areas in the planning area are covered by NSO and "no surface disturbance" restrictions.

   The NSO restrictions and "no leasing" designations result in an identical level of protection for surface resources; therefore, we consider elimination of leasing unnecessary for the areas mentioned. Another consideration is that with the NSO restrictions it is possible to obtain the royalties for federal oil and gas removed by off-site drilling, whereas lands where a no lease provision was in effect could be subject to draining of federal oil and gas could be drained by off-site drilling on state, private, or other federal or fee leases without compensation to the federal treasury.

   In its various alternatives, the Cody draft RMP/EIS includes consideration of a range of "no leasing," NSO, and "no surface disturbance" restrictions to protect various land and resource values. We believe that this range of options for protecting land and resource values and for allowing different levels of development meets NEPA requirements for an adequate range of alternatives. Also please see general response 5.

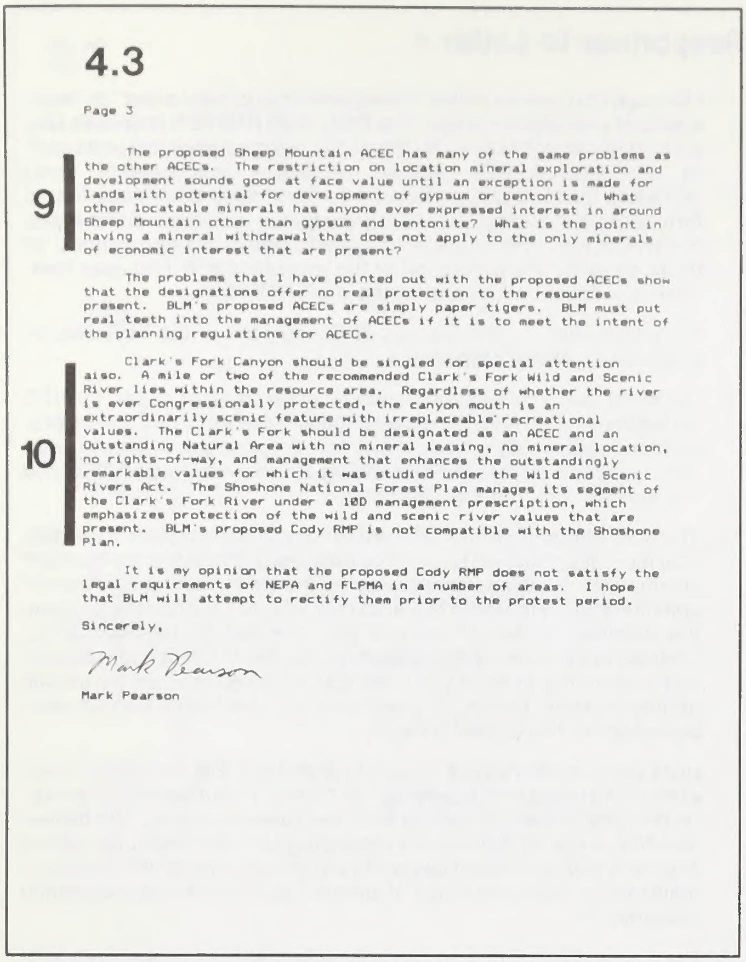
3. The Carter Mountain area has low potential for the occurrence of locatable minerals. There are no mining claims in the area now, and we do not anticipate the staking of mining claims in the future. Please see the response to comment 6 of letter 3 for a discussion of the restrictions on oil and gas exploration and development in the proposed ACEC. Also please see general response 4.

   Most of the Carter Mountain proposed ACEC lies within the Carter Mountain grazing allotment, number 2504. This allotment is authorized for sheep use during the summer, but it has not been grazed for the past three years. A vegetation inventory of the allotment conducted in 1986 indicated that 44% of the vegetation communities were in good ecological condition and 47% were in fair ecological condition. The remaining 9% were unclassified. If livestock grazing should begin again in the Carter Mountain allotment, monitoring would be initiated to ensure protection of the unique vegetation.

4. The size of the Five Springs Falls proposed ACEC is 160 acres. Appendix J to this document gives more information about the proposed ACECs. Known occurrences of rare plants occupy less than 5 acres in the proposed ACEC. The Five Springs Falls campground, which lies within the proposed ACEC, also occupies less than 5 acres. The proposed plan would protect the entire 160 areas with an NSO restriction. We believe that the this would adequately protect the campground and all known occurrences of rare plants in the proposed ACEC. For a comparison of the NSO restriction and no leasing, please see the response to comment 2 of this letter.

5. Please see the response to comment 2 of this letter. We do not expect that vandalism of cultural sites would increase or that any new roads would be built in the Little Mountain area as a result of mineral leasing or any other activity. The area has low potential for the occurrence of leasable minerals. Past leasing in the area has been for oil and gas, and records dating back to the early 1900s show that these leases have expired without having been drilled for oil or gas.

6. The BLM does not intend to add NSO restrictions to existing mineral leases; rather, NSO restrictions would be applied where appropriate on any new leases as existing leases expire. However, the BLM can modify proposed activities on existing leases on the basis of the



4.3

Page 3

9 The proposed Sheep Mountain ACEC has many of the same problems as the other ACECs. The restriction on location mineral exploration and development sounds good at face value until an exception is made for lands with potential for development of gypsum or bentonite. What other locatable minerals has anyone ever expressed interest in around Sheep Mountain other than gypsum and bentonite? What is the point in having a mineral withdrawal that does not apply to the only minerals of economic interest that are present?

The problems that I have pointed out with the proposed ACECs show that the designations offer no real protection to the resources present. BLM's proposed ACECs are simply paper tigers. BLM must put real teeth into the management of ACECs if it is to meet the intent of the planning regulations for ACECs.

10 Clark's Fork Canyon should be singled for special attention also. A mile or two of the recommended Clark's Fork Wild and Scenic River lies within the resource area. Regardless of whether the river is ever Congressionally protected, the canyon mouth is an extraordinarily scenic feature with irreplaceable recreational values. The Clark's Fork should be designated as an ACEC and an Outstanding Natural Area with no mineral leasing, no mineral location, no rights-of-way, and management that enhances the outstandingly remarkable values for which it was studied under the Wild and Scenic Rivers Act. The Shoshone National Forest Plan manages its segment of the Clark's Fork River under a 10D management prescription, which emphasizes protection of the wild and scenic river values that are present. BLM's proposed Cody RMP is not compatible with the Shoshone Plan.

It is my opinion that the proposed Cody RMP does not satisfy the legal requirements of NEPA and FLPMA in a number of areas. I hope that BLM will attempt to rectify them prior to the protest period.

Sincerely,

Mark Pearson

Mark Pearson

results of site-specific environmental analyses or through negotiations with lessees.

7. Closure to new mining claim locations on Little Mountain would have no effect on the valid existing rights of mining claims that predate the closure. However, such closure would make it more feasible for the BLM to conduct examinations of mining claim validity. If existing mining claims are found to be invalid according to the mining laws, they can be removed. Since all mining claims are considered valid until proven otherwise, the purpose for the closure to mineral location would be to prevent the staking of new mining claims in the area and to forestall the need for additional validity examinations.

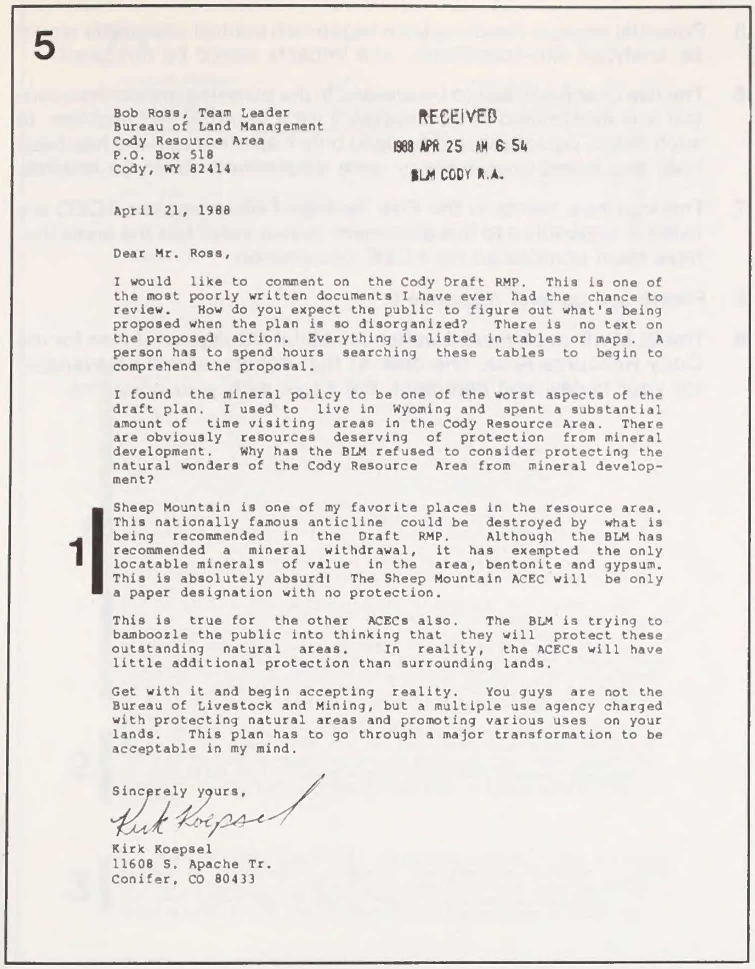
8. ORV use in the proposed ACEC would be limited to *designated* roads and trails rather than *existing* roads and trails (please see map 13 and page 128 in the draft RMP/EIS).

9. Because of potential conflicts with bentonite development activities, the boundary of the proposed Sheep Mountain Anticline ACEC has been amended to exclude lands with potential for bentonite. Within the new boundaries of this proposed ACEC, there are mining claims on lands underlain by Paleozoic age limestones and sandstones in the Phosphoria Formation, Tensleep Sandstone, Amsden Formation, and the Madison Limestone. There is evidence on Sheep Mountain of mining claim exploration activity in these rocks and of small-scale removal of mineral materials.

   Some mining claim owners may want to mine the limestone and sandstone for use as building stone or other construction materials; however, in most cases the mining laws do not allow the development and mining of these common variety materials on mining claims.

   In the proposed plan, all lands in the proposed ACEC (as now delineated) would be closed to future mineral entry by the establishment of a mineral withdrawal. This would include lands with potential for gypsum. The withdrawal would not have any effect on the rights of holders of the existing mining claims. However, the BLM could conduct examinations of mining claim validity on building stone mining claims as described in the response to comment 7 of this letter.

10. Please see general response 3.



5

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

RECEIVED
1988 APR 25 AM 6 54
BLM CODY R.A.

April 21, 1988

Dear Mr. Ross,

I would like to comment on the Cody Draft RMP. This is one of the most poorly written documents I have ever had the chance to review. How do you expect the public to figure out what's being proposed when the plan is so disorganized? There is no text on the proposed action. Everything is listed in tables or maps. A person has to spend hours searching these tables to begin to comprehend the proposal.

I found the mineral policy to be one of the worst aspects of the draft plan. I used to live in Wyoming and spent a substantial amount of time visiting areas in the Cody Resource Area. There are obviously resources deserving of protection from mineral development. Why has the BLM refused to consider protecting the natural wonders of the Cody Resource Area from mineral development?

1 Sheep Mountain is one of my favorite places in the resource area. This nationally famous anticline could be destroyed by what is being recommended in the Draft RMP. Although the BLM has recommended a mineral withdrawal, it has exempted the only locatable minerals of value in the area, bentonite and gypsum. This is absolutely absurd! The Sheep Mountain ACEC will be only a paper designation with no protection.

This is true for the other ACECs also. The BLM is trying to bamboozle the public into thinking that they will protect these outstanding natural areas. In reality, the ACECs will have little additional protection than surrounding lands.

Get with it and begin accepting reality. You guys are not the Bureau of Livestock and Mining, but a multiple use agency charged with protecting natural areas and promoting various uses on your lands. This plan has to go through a major transformation to be acceptable in my mind.

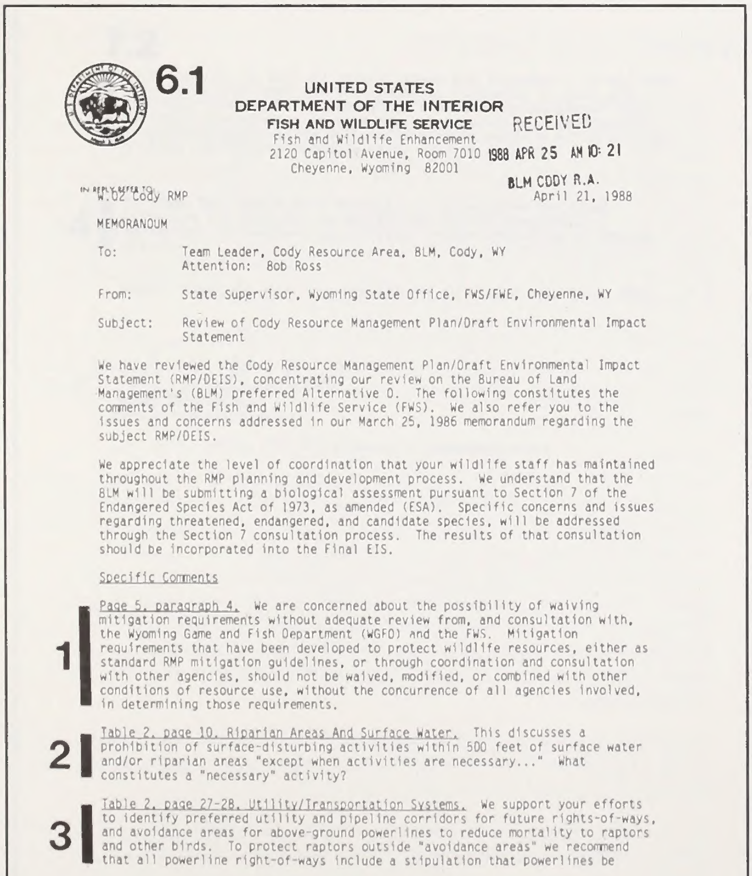
Sincerely yours,

Kirk Koepsel

Kirk Koepsel
11608 S. Apache Tr.
Conifer, CO 80433

Response to Letter 5

1. Please see the response to comment 9 of letter 4.



6.1

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Fish and Wildlife Enhancement
2120 Capitol Avenue, Room 7010
Cheyenne, Wyoming 82001

RECEIVED
1988 APR 25 AM 10: 21
BLM CODY R.A.

IN REPLY REFER TO:
W.02 Cody RMP

April 21, 1988

MEMORANDUM

To: Team Leader, Cody Resource Area, BLM, Cody, WY
Attention: Bob Ross

From: State Supervisor, Wyoming State Office, FWS/FWE, Cheyenne, WY

Subject: Review of Cody Resource Management Plan/Draft Environmental Impact Statement

We have reviewed the Cody Resource Management Plan/Draft Environmental Impact Statement (RMP/DEIS), concentrating our review on the Bureau of Land Management's (BLM) preferred Alternative D. The following constitutes the comments of the Fish and Wildlife Service (FWS). We also refer you to the issues and concerns addressed in our March 25, 1986 memorandum regarding the subject RMP/DEIS.

We appreciate the level of coordination that your wildlife staff has maintained throughout the RMP planning and development process. We understand that the BLM will be submitting a biological assessment pursuant to Section 7 of the Endangered Species Act of 1973, as amended (ESA). Specific concerns and issues regarding threatened, endangered, and candidate species, will be addressed through the Section 7 consultation process. The results of that consultation should be incorporated into the Final EIS.

Specific Comments

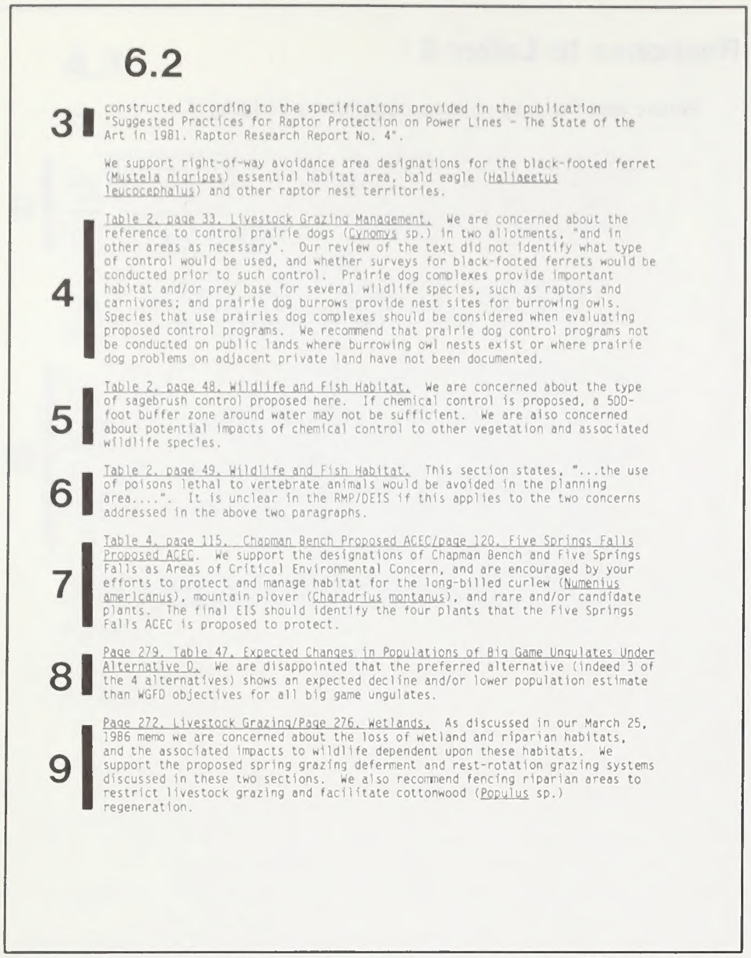
1 Page 5, paragraph 4. We are concerned about the possibility of waiving mitigation requirements without adequate review from, and consultation with, the Wyoming Game and Fish Department (WGFD) and the FWS. Mitigation requirements that have been developed to protect wildlife resources, either as standard RMP mitigation guidelines, or through coordination and consultation with other agencies, should not be waived, modified, or combined with other conditions of resource use, without the concurrence of all agencies involved, in determining those requirements.

2 Table 2, page 10, Riparian Areas And Surface Water. This discusses a prohibition of surface-disturbing activities within 500 feet of surface water and/or riparian areas "except when activities are necessary..." What constitutes a "necessary" activity?

3 Table 2, page 27-28, Utility/Transportation Systems. We support your efforts to identify preferred utility and pipeline corridors for future rights-of-ways, and avoidance areas for above-ground powerlines to reduce mortality to raptors and other birds. To protect raptors outside "avoidance areas" we recommend that all powerline right-of-ways include a stipulation that powerlines be

Responses to Letter 6

1. The wildlife mitigation requirements to protect wildlife habitat that were described in the draft RMP/EIS were developed after an extensive evaluation of wildlife resources and the concerns of other agencies, especially the WGFD and the USFWS. In most cases, the BLM would evaluate a proposed action and determine when mitigative measures can or cannot be waived. We will always consult with the USFWS when a federally listed endangered, threatened, "proposed" or candidate species could be affected by a proposed action. The BLM also will practice coordination and consultation with other agencies as appropriate or necessary, but concurrence may or may not be possible.
2. When possible, the BLM intends to prevent the further loss of wetlands in the planning area and to implement actions to improve and restore native wetland plant and animal communities. Some surface-disturbing activities such as fence construction may be necessary in wetland habitats to achieve our management goals. In addition, when considering proposed activities we must have the flexibility to allow surface disturbances in wetland habitats if adverse impacts could be avoided or if the activity and its associated mitigation would benefit our overall wetlands objectives.
3. In accordance with section 2851 of the BLM Manual, all power lines that are constructed or modified on public land will comply with the guidelines of the raptor research report you cited.
4. We are aware of the importance of prairie dog colonies. We manage these colonies under the *Prairie Dog Ecosystem Habitat Management Plan* (USDI, BLM *1986d). Prairie dog control would be carried out only if prairie dog damage was documented and control was determined to be necessary. Only two grazing allotments are currently identified for this practice. Such controls would be conducted in accordance with the HMP mentioned above, and all biological control options would be tried before other options would be considered. The status of and effects on all sensitive species (for example, black-footed ferret, burrowing owl, swift fox) would be determined before such controls were implemented.



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3 constructed according to the specifications provided in the publication "Suggested Practices for Raptor Protection on Power Lines - The State of the Art in 1981. Raptor Research Report No. 4".

We support right-of-way avoidance area designations for the black-footed ferret (Mustela nigripes) essential habitat area, bald eagle (Haliaeetus leucocephalus) and other raptor nest territories.

4 Table 2, page 33, Livestock Grazing Management. We are concerned about the reference to control prairie dogs (Cynomys sp.) in two allotments, "and in other areas as necessary". Our review of the text did not identify what type of control would be used, and whether surveys for black-footed ferrets would be conducted prior to such control. Prairie dog complexes provide important habitat and/or prey base for several wildlife species, such as raptors and carnivores; and prairie dog burrows provide nest sites for burrowing owls. Species that use prairies dog complexes should be considered when evaluating proposed control programs. We recommend that prairie dog control programs not be conducted on public lands where burrowing owl nests exist or where prairie dog problems on adjacent private land have not been documented.

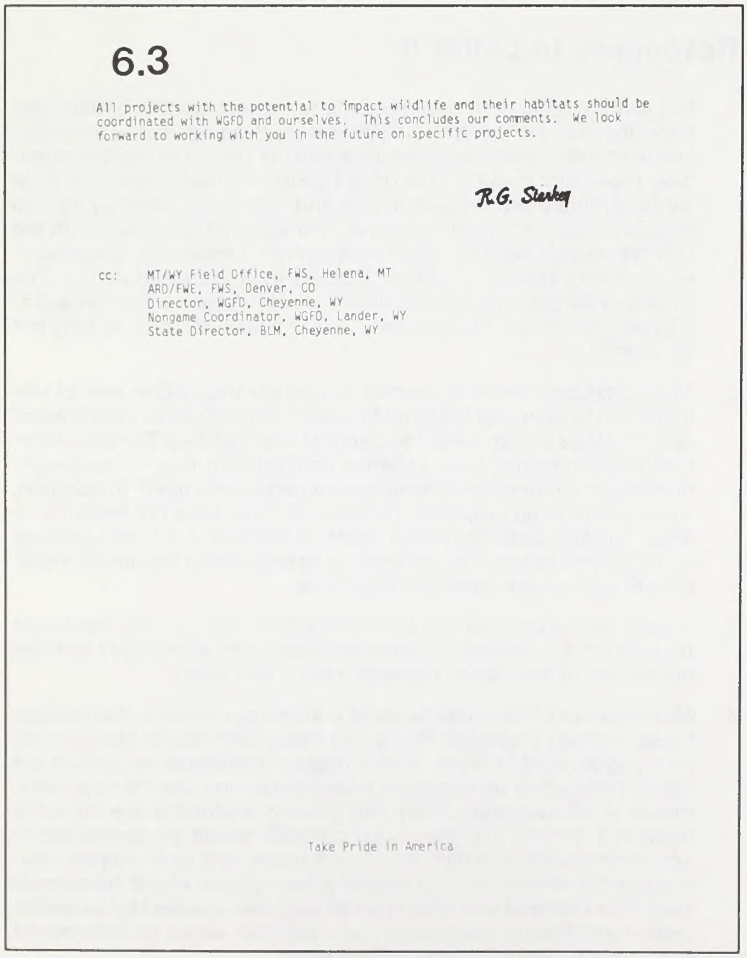
5 Table 2, page 48, Wildlife and Fish Habitat. We are concerned about the type of sagebrush control proposed here. If chemical control is proposed, a 500-foot buffer zone around water may not be sufficient. We are also concerned about potential impacts of chemical control to other vegetation and associated wildlife species.

6 Table 2, page 49, Wildlife and Fish Habitat. This section states, "...the use of poisons lethal to vertebrate animals would be avoided in the planning area....". It is unclear in the RMP/DEIS if this applies to the two concerns addressed in the above two paragraphs.

7 Table 4, page 115, Chapman Bench Proposed ACEC/page 120, Five Springs Falls Proposed ACEC. We support the designations of Chapman Bench and Five Springs Falls as Areas of Critical Environmental Concern, and are encouraged by your efforts to protect and manage habitat for the long-billed curlew (Numenius americanus), mountain plover (Charadrius montanus), and rare and/or candidate plants. The final EIS should identify the four plants that the Five Springs Falls ACEC is proposed to protect.

8 Page 279, Table 47, Expected Changes in Populations of Big Game Ungulates Under Alternative D. We are disappointed that the preferred alternative (indeed 3 of the 4 alternatives) shows an expected decline and/or lower population estimate than WGFD objectives for all big game ungulates.

9 Page 272, Livestock Grazing/Page 276, Wetlands. As discussed in our March 25, 1986 memo we are concerned about the loss of wetland and riparian habitats, and the associated impacts to wildlife dependent upon these habitats. We support the proposed spring grazing deferment and rest-rotation grazing systems discussed in these two sections. We also recommend fencing riparian areas to restrict livestock grazing and facilitate cottonwood (Populus sp.) regeneration.



6.3

All projects with the potential to impact wildlife and their habitats should be coordinated with WGFD and ourselves. This concludes our comments. We look forward to working with you in the future on specific projects.

R.G. Starkey

cc: MT/WY Field Office, FWS, Helena, MT
ARD/FWE, FWS, Denver, CO
Director, WGFD, Cheyenne, WY
Nongame Coordinator, WGFD, Lander, WY
State Director, BLM, Cheyenne, WY

Take Pride in America

5. Potential impacts resulting from sagebrush control near water would be analyzed site-specifically, and impacts would be mitigated.

6. The use of poisons would be avoided in the planning area unless control was determined to be necessary for a documented problem. In such cases, poisons would be used only if all other options had been tried and found unsuitable or were determined not to be feasible.

7. The four rare plants in the Five Springs Falls proposed ACEC are listed in appendix J to this document, which describes the areas that have been considered for ACEC designation.

8. Please see general response 6.

9. The BLM will implement a wetlands habitat management plan for the Cody Resource Area. The draft of that document will be available for your review and comment. We agree with your concerns.

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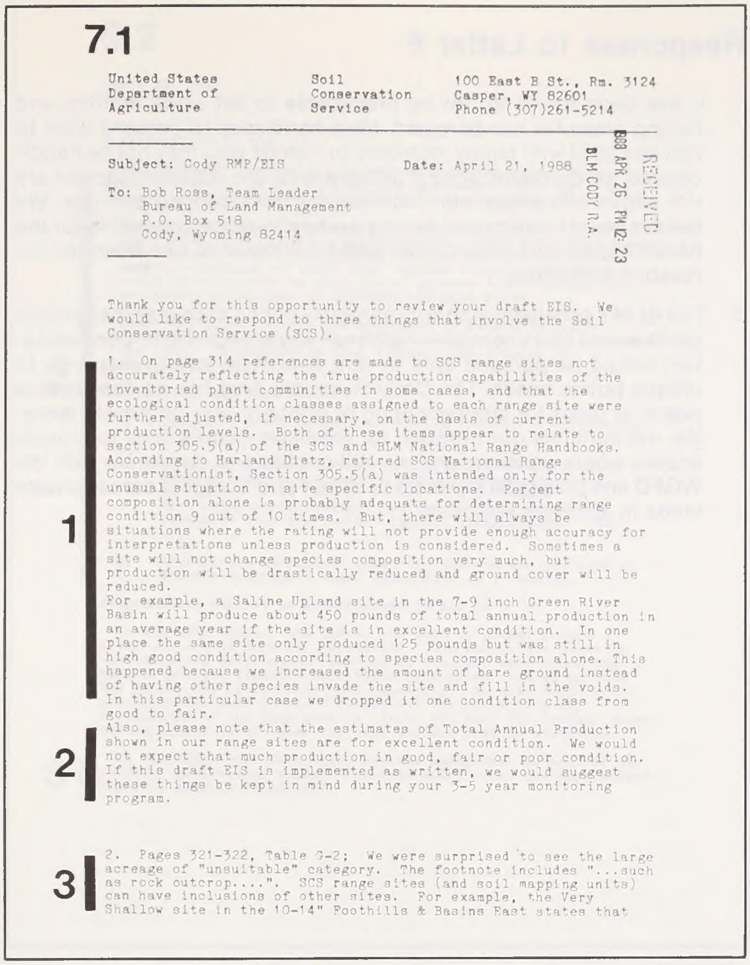

United States Department of Agriculture
Soil Conservation Service
100 East B St., Rm. 3124
Casper, WY 82601
Phone (307)261-5214

RECEIVED
88 APR 26 PM 12: 23
BLM CODY R.A.

Subject: Cody RMP/EIS

Date: April 21, 1988

To: Bob Ross, Team Leader
Bureau of Land Management
P.O. Box 518
Cody, Wyoming 82414

Thank you for this opportunity to review your draft EIS. We would like to respond to three things that involve the Soil Conservation Service (SCS).

1 1. On page 314 references are made to SCS range sites not accurately reflecting the true production capabilities of the inventoried plant communities in some cases, and that the ecological condition classes assigned to each range site were further adjusted, if necessary, on the basis of current production levels. Both of these items appear to relate to section 305.5(a) of the SCS and BLM National Range Handbooks. According to Harland Dietz, retired SCS National Range Conservationist, Section 305.5(a) was intended only for the unusual situation on site specific locations. Percent composition alone is probably adequate for determining range condition 9 out of 10 times. But, there will always be situations where the rating will not provide enough accuracy for interpretations unless production is considered. Sometimes a site will not change species composition very much, but production will be drastically reduced and ground cover will be reduced.
For example, a Saline Upland site in the 7-9 inch Green River Basin will produce about 450 pounds of total annual production in an average year if the site is in excellent condition. In one place the same site only produced 125 pounds but was still in high good condition according to species composition alone. This happened because we increased the amount of bare ground instead of having other species invade the site and fill in the voids. In this particular case we dropped it one condition class from good to fair.

2 Also, please note that the estimates of Total Annual Production shown in our range sites are for excellent condition. We would not expect that much production in good, fair or poor condition. If this draft EIS is implemented as written, we would suggest these things be kept in mind during your 3-5 year monitoring program.

3 2. Pages 321-322, Table G-2; We were surprised to see the large acreage of "unsuitable" category. The footnote includes "...such as rock outcrop....". SCS range sites (and soil mapping units) can have inclusions of other sites. For example, the Very Shallow site in the 10-14" Foothills & Basins East states that

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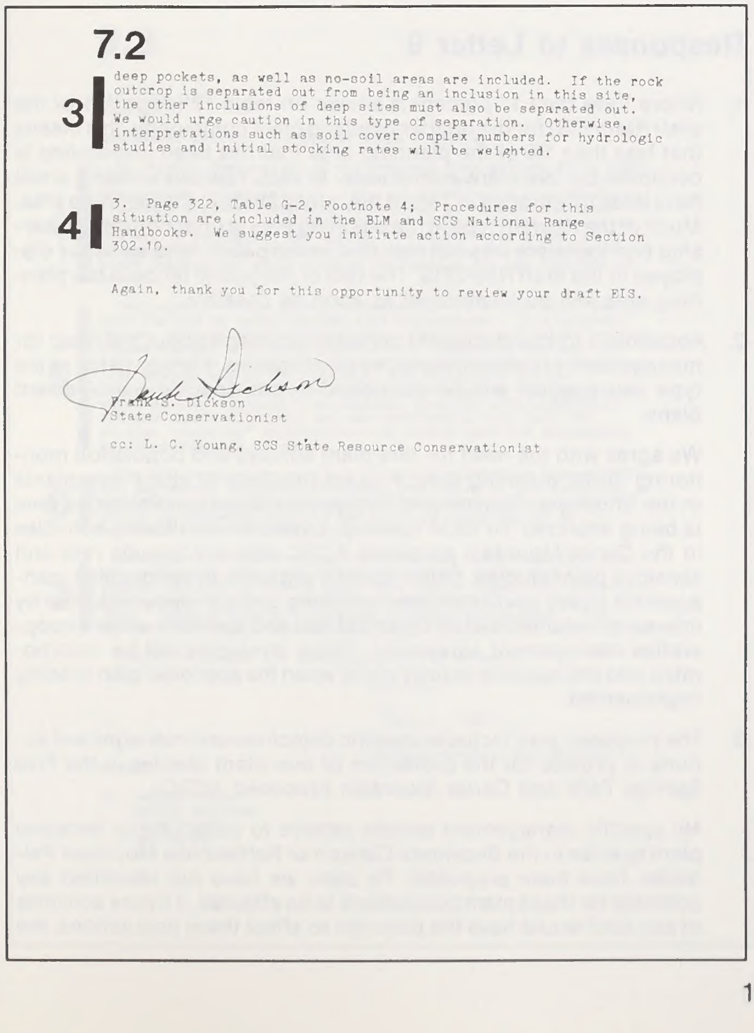


3 deep pockets, as well as no-soil areas are included. If the rock outcrop is separated out from being an inclusion in this site, the other inclusions of deep sites must also be separated out. We would urge caution in this type of separation. Otherwise, interpretations such as soil cover complex numbers for hydrologic studies and initial stocking rates will be weighted.

4 3. Page 322, Table G-2, Footnote 4; Procedures for this situation are included in the BLM and SCS National Range Handbooks. We suggest you initiate action according to Section 302.10.

Again, thank you for this opportunity to review your draft EIS.

Frank Dickson
Frank S. Dickson
State Conservationist

cc: L. C. Young, SCS State Resource Conservationist

Responses to Letter 7

1. The Cody Resource Area conducted an ecological site inventory in 1984 through 1986. The inventory covered approximately 814,000 acres, or 75% of the total planning area. During this time 6,500 different range sites were visited to determine ecological condition classes that would be projected into a suggested stocking level for the preferred alternative.

   The results of the samples collected indicated that the suggested production levels of the potential communities did not match the production capabilities associated with the Bighorn Basin. For example, the average production of the saline uplands in good and fair condition was 118 pounds per acre and 98 pounds per acre, respectively. Most of the sites were producing only 50 to 65 pounds per acre. This represents only 14% of the potential production for the site, but it still indicates a good condition on the basis of species diversity. Since the suggested stocking levels are based on the potential for these sites to produce 350 pounds per acre, the corresponding stocking levels for the condition classes of this range site and many others resulted in unfeasible proposals.

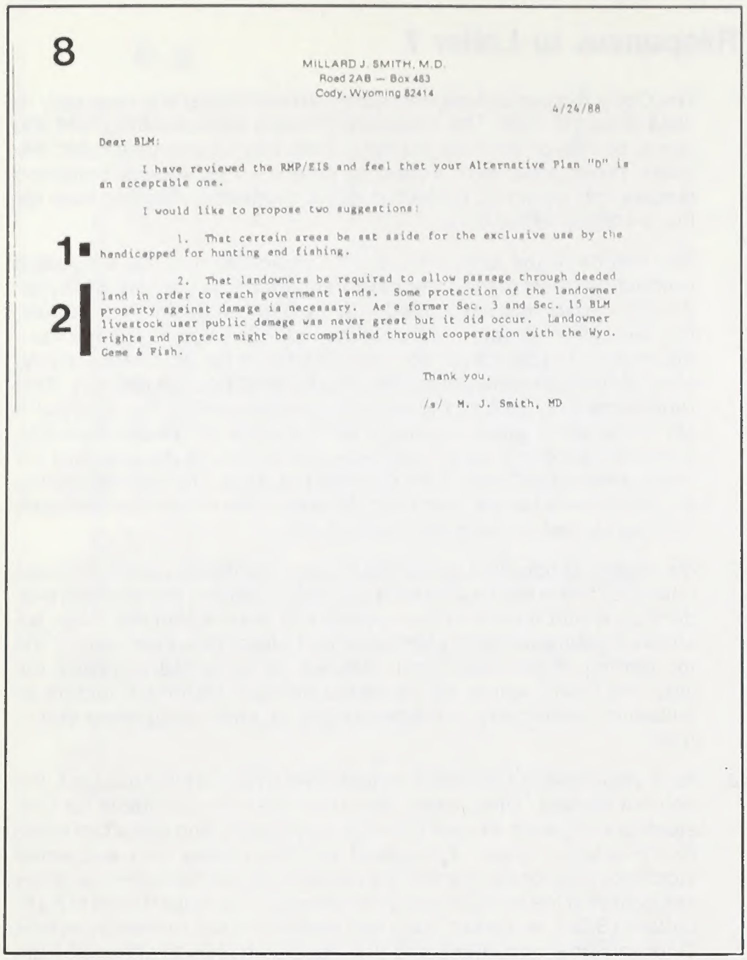
2. We believe production will change only slightly as condition class changes. There will be a "shift" from one species to another, but production would remain rather constant, at least within the range we allowed before adjusting the condition class. However, during the monitoring phase, additional data will be collected to justify the stocking levels, which will be based on such additional factors as suitability, availability, average production, and management objectives.

3. As is explained in footnote 2 to table G-2 in the draft document, the column headed "Unsuitable" lists areas that are unsuitable for livestock grazing such as rock outcrop, woodlands, and disturbed areas (for example, mines). Ecological condition class and suggested stocking rates for these areas are not identified in the technical range site guides of the Soil Conservation Service, U. S. Department of Agriculture (SCS). A revised table G-2 appears in the revised appendix G for this final document, and that heading has been changed from "Unsuitable" to "Unconditioned" because the term *unsuitable* may incorrectly imply a subjective appraisal of the value of the land for livestock grazing or other purposes.

   A large amount of the inventoried area is classed as unsuitable (unconditioned) because a large portion of the planning area is composed of the "badlands" soil unit (number 102). Our inventory also focused on "I" category allotments, in which rock outcrops tend to occur more frequently than elsewhere in the planning area. Rock outcrop and bare parent material were mapped by site-specific examination.

   Whenever a site writeup area contained a significant number of rock outcrops or deep sites as inclusions in the major range site description, they were described separately, their condition was rated separately, and a percentage of the site writeup area was assigned to them. For example, an area was mapped and assigned soil unit 102 (badland). If the site writeup area contained deep sites but more than 10% of it was rock outcrops, a breakdown of range sites could have been loamy 5-9, 15%; shale 5-9, 20%; and rock outcrop, 65%. In other words, our procedure followed the suggestion in your comment that if rock outcrops are separated from the major range site, then inclusions of deep sites also should be separated. This type of "splitting" of a site writeup area into its component range sites was standard in the Cody ecological site inventory.

4. Footnote 4 has been deleted from table G-2, which has been revised for this final document. For allotment 2504, we have modified table G-2 by determining ecological condition based on the SCS range site guidelines for plant communities in precipitation zones of more than 20 inches annually. However, as we said on page 314 of the draft RMP/EIS, baseline data collected during the ecological site inventory indicated need for further analysis of the suggested production capabilities and species composition of the range site in our planning area. These two factors are extremely important in the development of proposed stocking levels according to the "Supplemental Planning Guidance for Renewable Resources" in sections 1620 through 1622 of the BLM Manual. For this reason, we intend to initiate actions according to section 302.10 before we establish management objectives for future range condition.



8

MILLARD J. SMITH, M.D.
Road 2AB — Box 483
Cody, Wyoming 82414

4/24/88

Dear BLM:

I have reviewed the RMP/EIS and feel that your Alternative Plan "D" is an acceptable one.

I would like to propose two suggestions:

1 ▪ 1. That certain areas be set aside for the exclusive use by the handicapped for hunting and fishing.

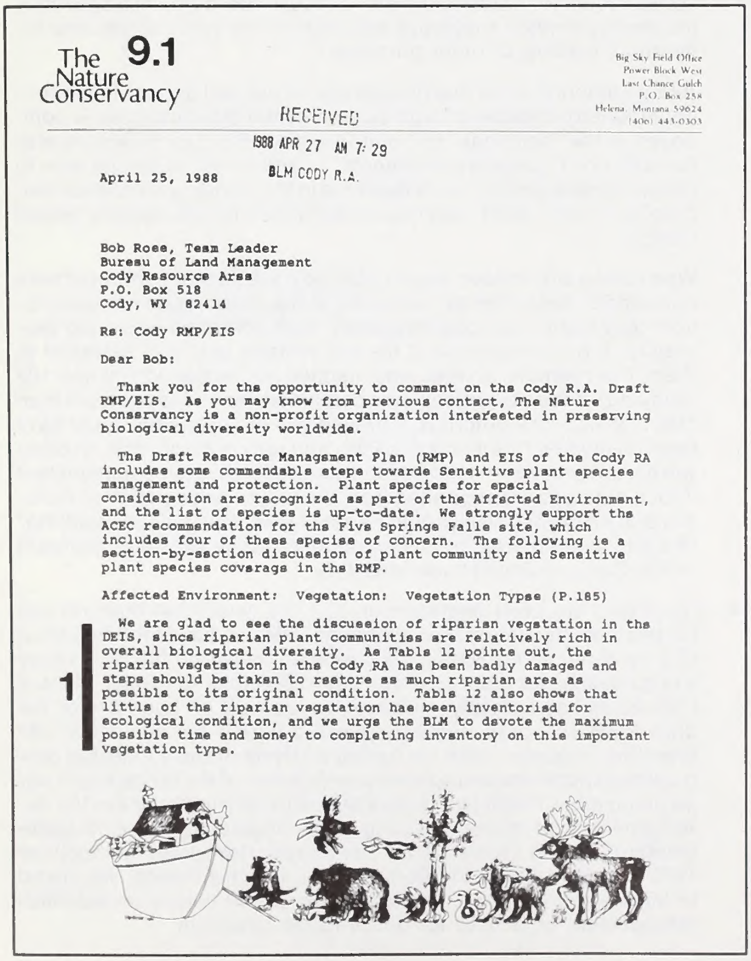
2 2. That landowners be required to allow passage through deeded land in order to reach government lands. Some protection of the landowner property against damage is necessary. As a former Sec. 3 and Sec. 15 BLM livestock user public damage was never great but it did occur. Landowner rights and protect might be accomplished through cooperation with the Wyo. Game & Fish.

Thank you,

/s/ M. J. Smith, MD

Responses to Letter 8

1. It has been found to not be practicable to set aside hunting and fishing areas for handicapped. Most handicapped persons want to fish and hunt with family members or friends who may not be handicapped, so problems arise if persons who are not handicapped are not allowed in areas with facilities for handicapped can use. We believe some hunting and fishing areas should be accessible for the handicapped, but others must also be allowed to use them for the reasons mentioned.
2. The BLM's only legal authority to *require* public access across private lands would be to condemn rights-of-way across them. Condemnation would be pursued only in rare circumstances in response to unique public needs. The Cody Resource Area has no foreseeable needs or plans for condemnation of rights-of-way on private lands. We will continue our program for easement acquisitions to provide access where possible, and we will continue to cooperate with the WGFD and private landowners to obtain public access across private lands in strategic locations.



9.1

The Nature Conservancy

Big Sky Field Office
Power Block West
Last Chance Gulch
P.O. Box 258
Helena, Montana 59624
(406) 443-0303

RECEIVED
1988 APR 27 AM 7:29
BLM CODY R.A.

April 25, 1988

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

Re: Cody RMP/EIS

Dear Bob:

Thank you for the opportunity to comment on the Cody R.A. Draft RMP/EIS. As you may know from previous contact, The Nature Conservancy is a non-profit organization interested in preserving biological diversity worldwide.

The Draft Resource Management Plan (RMP) and EIS of the Cody RA includes some commendable steps towards Sensitive plant species management and protection. Plant species for special consideration are recognized as part of the Affected Environment, and the list of species is up-to-date. We strongly support the ACEC recommendation for the Five Springs Falls site, which includes four of these species of concern. The following is a section-by-section discussion of plant community and Sensitive plant species coverage in the RMP.

Affected Environment: Vegetation: Vegetation Types (P.185)

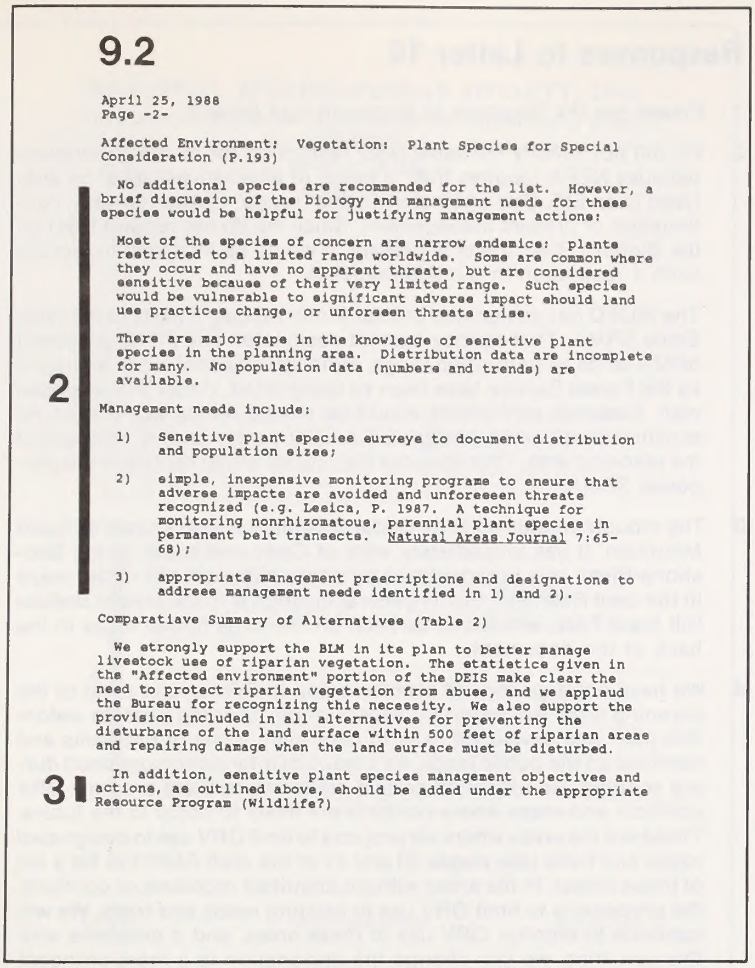
1 We are glad to see the discussion of riparian vegetation in the DEIS, since riparian plant communities are relatively rich in overall biological diversity. As Table 12 points out, the riparian vegetation in the Cody RA has been badly damaged and steps should be taken to restore as much riparian area as possible to its original condition. Table 12 also shows that little of the riparian vegetation has been inventoried for ecological condition, and we urge the BLM to devote the maximum possible time and money to completing inventory on this important vegetation type.

Responses to Letter 9

1. Where "less than 1" percent is shown on table 12 (page 191 of the draft RMP/EIS) for the riparian/wetland plant community, this means that less than 1% of the planning area that has been inventoried is occupied by this plant community. In fact, riparian/wetland areas have been inventoried in 75% of the public lands in the planning area. Much of the riparian type in the planning area is under private ownership and therefore was not included in the public land statistics displayed in the draft RMP/EIS. The rest of the public lands in the planning area will be inventoried as soon as possible.
2. Appendix J in this document contains language about the need for management of rare and sensitive plant species. Further detail of the type you suggest will be developed in site-specific management plans.

   We agree with the need for rare plant surveys and population monitoring in the planning area. A grant proposal to study rare plants in the Shoshone Canyon and Rattlesnake Mountain Palisades area is being analyzed for BLM funding. Livestock monitoring activities in the Carter Mountain proposed ACEC also will include rare and sensitive plant studies. Other options available to accomplish management needs could include monitoring and surveys conducted by interested volunteers or by organizations and agencies under a cooperative management agreement. These strategies will be incorporated into site-specific activity plans when the approved plan is being implemented.
3. The proposed plan includes specific objectives and management actions to provide for the protection of rare plant species in the Five Springs Falls and Carter Mountain proposed ACECs.

   No specific management actions relative to other rare or sensitive plant species in the Shoshone Canyon or Rattlesnake Mountain Palisades have been proposed. To date, we have not identified any potential for these plant populations to be affected. If future activities of any kind would have the potential to affect these populations, the



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April 25, 1988
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Affected Environment: Vegetation: Plant Species for Special Consideration (P.193)

2 No additional species are recommended for the list. However, a brief discussion of the biology and management needs for these species would be helpful for justifying management actions:

Most of the species of concern are narrow endemics: plants restricted to a limited range worldwide. Some are common where they occur and have no apparent threats, but are considered sensitive because of their very limited range. Such species would be vulnerable to significant adverse impact should land use practices change, or unforeseen threats arise.

There are major gaps in the knowledge of sensitive plant species in the planning area. Distribution data are incomplete for many. No population data (numbers and trends) are available.

Management needs include:

1) Sensitive plant species surveys to document distribution and population sizes;

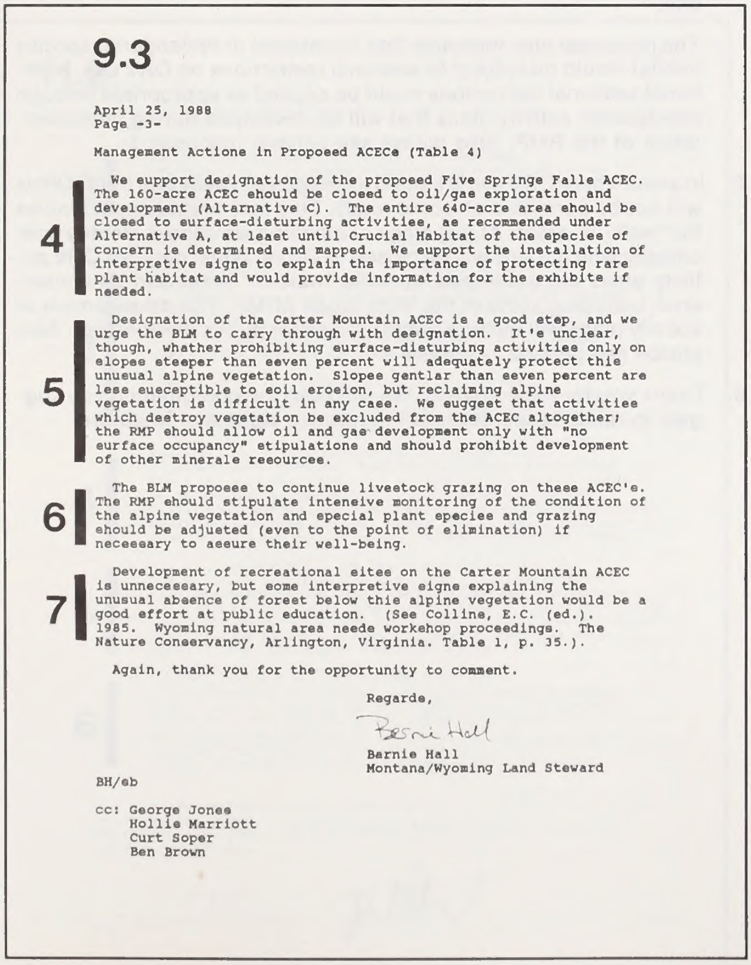
2) simple, inexpensive monitoring programs to ensure that adverse impacts are avoided and unforeseen threats recognized (e.g. Lesica, P. 1987. A technique for monitoring nonrhizomatous, parennial plant species in permanent belt transects. Natural Areas Journal 7:65-68);

3) appropriate management prescriptions and designations to address management needs identified in 1) and 2).

Comparatiave Summary of Alternatives (Table 2)

We strongly support the BLM in its plan to better manage livestock use of riparian vegetation. The statistics given in the "Affected environment" portion of the DEIS make clear the need to protect riparian vegetation from abuse, and we applaud the Bureau for recognizing this necessity. We also support the provision included in all alternatives for preventing the disturbance of the land surface within 500 feet of riparian areas and repairing damage when the land surface must be disturbed.

3 In addition, sensitive plant species management objectives and actions, as outlined above, should be added under the appropriate Resource Program (Wildlife?)



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April 25, 1988
Page -3-

Management Actions in Proposed ACECs (Table 4)

4 We support designation of the proposed Five Springs Falls ACEC. The 160-acre ACEC should be closed to oil/gas exploration and development (Altarnative C). The entire 640-acre area should be closed to surface-disturbing activities, as recommended under Alternative A, at least until Crucial Habitat of the species of concern is determined and mapped. We support the installation of interpretive signs to explain tha importance of protecting rare plant habitat and would provide information for the exhibits if needed.

5 Designation of tha Carter Mountain ACEC is a good step, and we urge the BLM to carry through with designation. It's unclear, though, whether prohibiting surface-disturbing activities only on slopes steeper than seven percent will adequately protect this unusual alpine vegetation. Slopes gentlar than seven percent are less susceptible to soil erosion, but reclaiming alpine vegetation is difficult in any case. We suggest that activities which destroy vegetation be excluded from the ACEC altogether; the RMP should allow oil and gas development only with "no surface occupancy" stipulations and should prohibit development of other minerals resources.

6 The BLM proposes to continue livestock grazing on these ACEC's. The RMP should stipulate intensive monitoring of the condition of the alpine vegetation and special plant species and grazing should be adjusted (even to the point of elimination) if necessary to assure their well-being.

7 Development of recreational sites on the Carter Mountain ACEC is unnecessary, but some interpretive signs explaining the unusual absence of forest below this alpine vegetation would be a good effort at public education. (See Collins, E.C. (ed.). 1985. Wyoming natural area needs workshop proceedings. The Nature Conservancy, Arlington, Virginia. Table 1, p. 35.).

Again, thank you for the opportunity to comment.

Regards,

Bernie Hall
Barnie Hall
Montana/Wyoming Land Steward

BH/eb

cc: George Jones
Hollie Marriott
Curt Soper
Ben Brown

BLM would analyze the impacts and prescribe objectives and management actions to protect the rare plants.

4. Please see the response to comment 4 of letter 4.

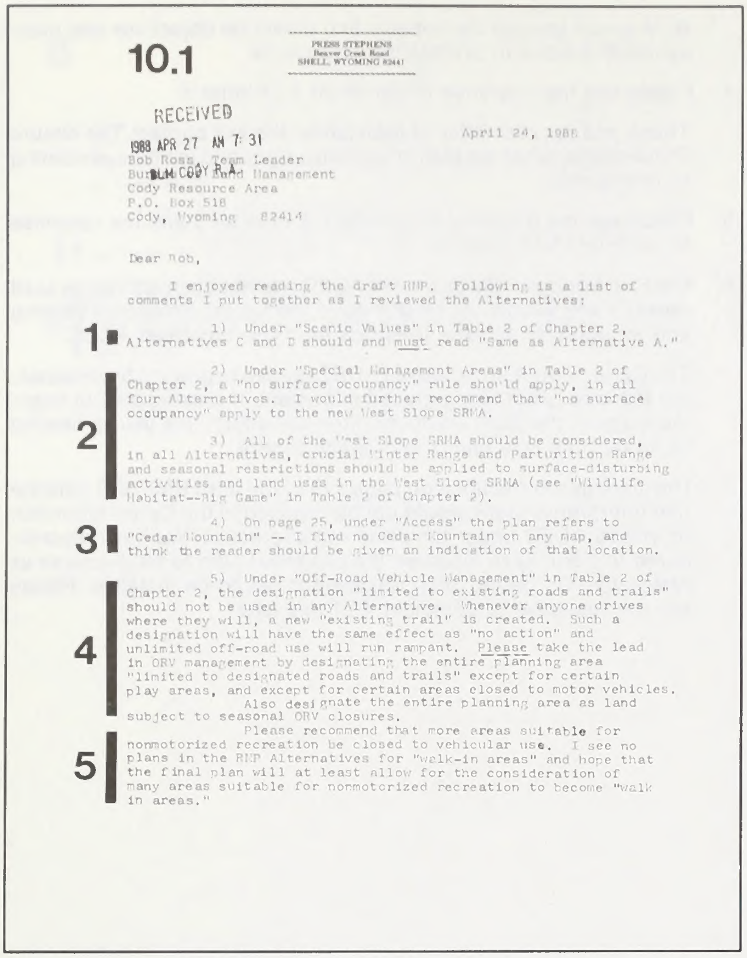
   Thank you for your offer of assistance. We will contact The Nature Conservancy when we plan interpretive signs and exhibits pertaining to rare plants.

5. Please see the response to comment 6 of letter 3 and the response to comment 3 of letter 4.

6. The Five Springs Falls proposed ACEC has not been actively grazed recently and would not be grazed in the future. Protective fencing and topography exclude livestock from the proposed ACEC.

   The Carter Mountain proposed ACEC is open to grazing by livestock, but the area is not being grazed at present. If grazing should begin there again, the BLM would monitor and adjust this use as needed to protect the rare plants and alpine tundra.

7. The management actions on page 115 of the draft RMP/EIS indicate that interpretive signs would not be installed in the Carter Mountain proposed ACEC under the preferred alternative. We have reconsidered this and have modified the proposed plan to be the same as Alternative C; that is, interpretive signs would be installed. Please see the response to comment 4 of this letter.



10.1

PRESS STEPHENS
Beaver Creek Road
SHELL, WYOMING 82441

RECEIVED
1988 APR 27 AM 7:31
BLM CODY R.A.

April 24, 1988

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, Wyoming 82414

Dear Bob,

I enjoyed reading the draft RMP. Following is a list of comments I put together as I reviewed the Alternatives:

1 1) Under "Scenic Values" in Table 2 of Chapter 2, Alternatives C and D should and must read "Same as Alternative A."

2 2) Under "Special Management Areas" in Table 2 of Chapter 2, a "no surface occupancy" rule should apply, in all four Alternatives. I would further recommend that "no surface occupancy" apply to the new West Slope SRMA.

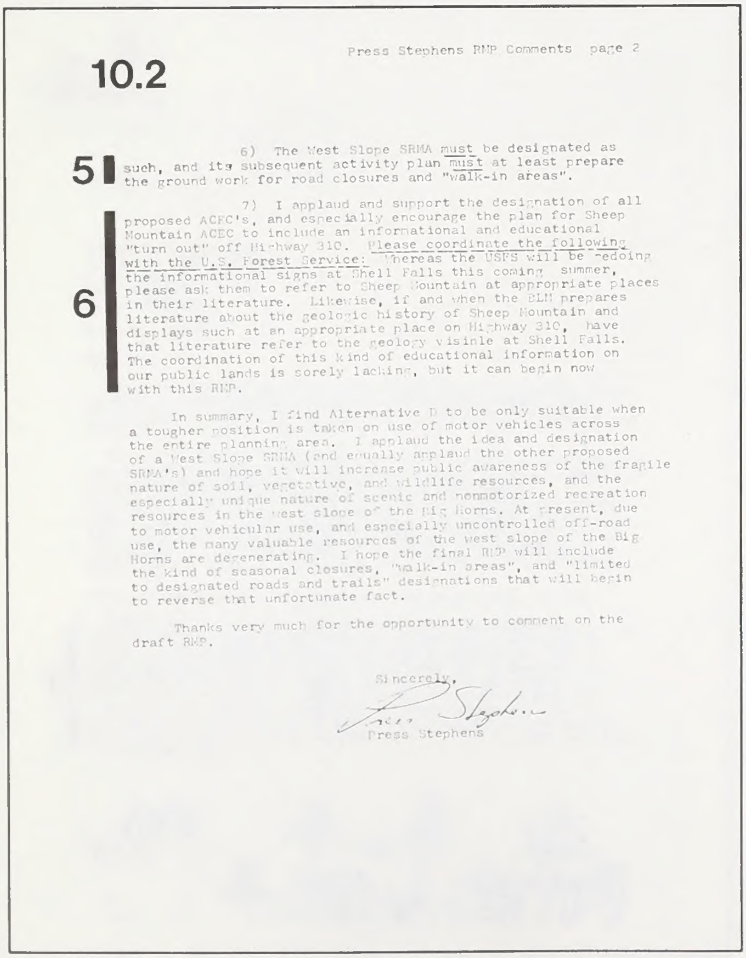
3) All of the West Slope SRMA should be considered, in all Alternatives, crucial Winter Range and Parturition Range and seasonal restrictions should be applied to surface-disturbing activities and land uses in the West Slope SRMA (see "Wildlife Habitat--Big Game" in Table 2 of Chapter 2).

3 4) On page 25, under "Access" the plan refers to "Cedar Mountain" -- I find no Cedar Mountain on any map, and think the reader should be given an indication of that location.

4 5) Under "Off-Road Vehicle Management" in Table 2 of Chapter 2, the designation "limited to existing roads and trails" should not be used in any Alternative. Whenever anyone drives where they will, a new "existing trail" is created. Such a designation will have the same effect as "no action" and unlimited off-road use will run rampant. Please take the lead in ORV management by designating the entire planning area "limited to designated roads and trails" except for certain play areas, and except for certain areas closed to motor vehicles.

Also designate the entire planning area as land subject to seasonal ORV closures.

5 Please recommend that more areas suitable for nonmotorized recreation be closed to vehicular use. I see no plans in the RMP Alternatives for "walk-in areas" and hope that the final plan will at least allow for the consideration of many areas suitable for nonmotorized recreation to become "walk in areas."



10.2

Press Stephens RMP Comments page 2

5 6) The West Slope SRMA must be designated as such, and its subsequent activity plan must at least prepare the ground work for road closures and "walk-in areas".

6 7) I applaud and support the designation of all proposed ACEC's, and especially encourage the plan for Sheep Mountain ACEC to include an informational and educational "turn out" off Highway 310. Please coordinate the following with the U.S. Forest Service: Whereas the USFS will be redoing the informational signs at Shell Falls this coming summer, please ask them to refer to Sheep Mountain at appropriate places in their literature. Likewise, if and when the BLM prepares literature about the geologic history of Sheep Mountain and displays such at an appropriate place on Highway 310, have that literature refer to the geology visinle at Shell Falls. The coordination of this kind of educational information on our public lands is sorely lacking, but it can begin now with this RMP.

In summary, I find Alternative D to be only suitable when a tougher position is taken on use of motor vehicles across the entire planning area. I applaud the idea and designation of a West Slope SRMA (and equally applaud the other proposed SRMA's) and hope it will increase public awareness of the fragile nature of soil, vegetative, and wildlife resources, and the especially unique nature of scenic and nonmotorized recreation resources in the west slope of the Big Horns. At present, due to motor vehicular use, and especially uncontrolled off-road use, the many valuable resources of the west slope of the Big Horns are degenerating. I hope the final RMP will include the kind of seasonal closures, "walk-in areas", and "limited to designated roads and trails" designations that will begin to reverse that unfortunate fact.

Thanks very much for the opportunity to comment on the draft RMP.

Sincerely,

Press Stephens

Press Stephens

Responses to Letter 10

1. Please see the response to comment 4 of letter 3.

2. We did not specify the same NSO restriction for all the alternatives because NEPA requires that "a range of alternatives" must be analyzed in an EIS. One alternative in this "range" is Alternative A, continuation of present management. Since we do not require NSO on the Bighorn River tracts at present, it would be incorrect to include such a restriction in our Alternative A.

   The WGFD has designated crucial winter ranges in parts of the West Slope SRMA. That agency has not designated any of the proposed SRMA lands as parturition range, although adjacent lands managed by the Forest Service have been so designated. Under the proposed plan, seasonal restrictions would be placed on surface-disturbing activities in all areas designated crucial winter ranges throughout the planning area. This includes the crucial winter ranges in the proposed SRMA.

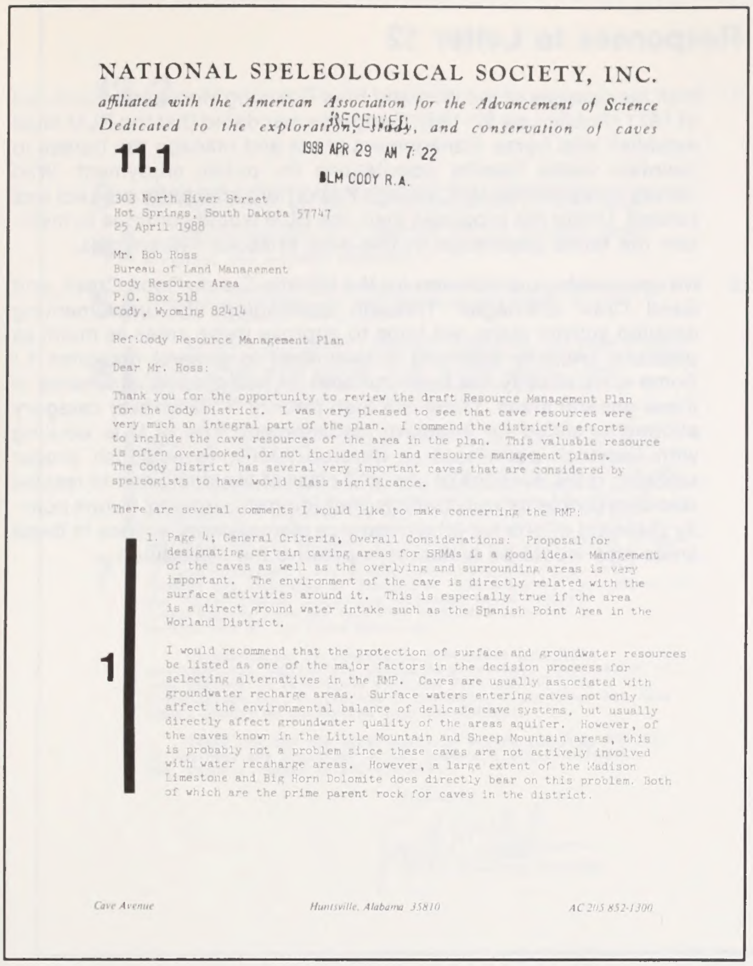
3. The mountain referred to as Cedar Mountain is also known as Spirit Mountain. It lies immediately west of Cody and south of the Shoshone River. It is not identified by either name on any of the maps in the draft RMP/EIS, but its general location is in the area of Buffalo Bill State Park, which can be seen on the large folded maps in the back of the document.

4. We have not experienced problems due to ORV use in most of the planning area. An important aspect of our scoping process before this plan was developed, was to determine areas of problems and conflicts on the public lands. As a result of information obtained during scoping, we identified certain areas where there are now ORV conflicts and areas where conflicts are likely to occur in the future. These are the areas where we propose to limit ORV use to designated roads and trails (see pages 40 and 41 of the draft RMP/EIS for a list of these areas). In the areas without identified problems or conflicts, the proposal is to limit ORV use to existing roads and trails. We will continue to monitor ORV use in these areas, and if problems with this use arise, we can change the designation to a more stringent one.

   The proposed plan indicates that threatened or endangered species habitat would be subject to seasonal restrictions on ORV use. Additional seasonal restrictions could be applied as appropriate through site-specific activity plans that will be developed during implementation of the RMP. Also please see general response 1.

5. In areas where ORV use is limited to *designated* roads and trails, ORVs will not be permitted on some roads. This may create opportunities for "walk-in" areas. At this stage of planning we cannot identify specifically which roads will be closed to ORVs. When detailed ORV activity plans are developed, specific "walk-in" areas can be considered, including some in the West Slope SRMA. The development of activity plans will include opportunities for public involvement. Also please see general response 1.

6. Thank you for the comment. We will keep the coordination you suggest in mind as we develop interpretive signs and literature.



NATIONAL SPELEOLOGICAL SOCIETY, INC.

affiliated with the American Association for the Advancement of Science
Dedicated to the exploration, study, and conservation of caves

RECEIVED
1988 APR 29 AM 7 22
BLM CODY R.A.

11.1

303 North River Street
Hot Springs, South Dakota 57747
25 April 1988

Mr. Bob Ross
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, Wyoming 82414

Ref:Cody Resource Management Plan

Dear Mr. Ross:

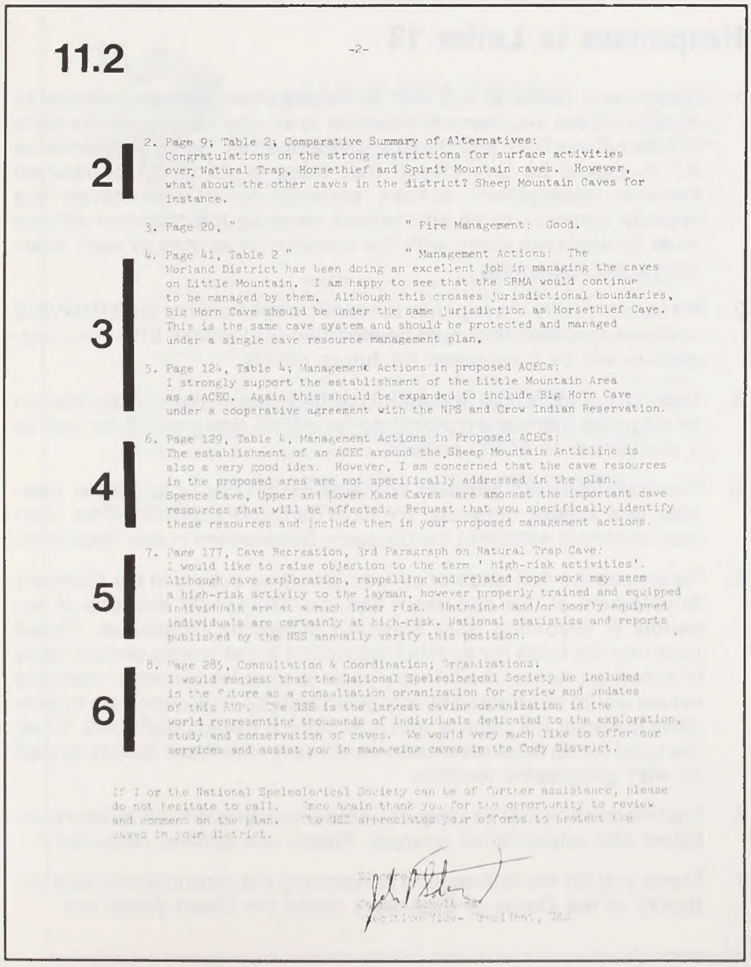
Thank you for the opportunity to review the draft Resource Management Plan for the Cody District. I was very pleased to see that cave resources were very much an integral part of the plan. I commend the district's efforts to include the cave resources of the area in the plan. This valuable resource is often overlooked, or not included in land resource management plans. The Cody District has several very important caves that are considered by speleogists to have world class significance.

There are several comments I would like to make concerning the RMP:

1. Page 4; General Criteria, Overall Considerations: Proposal for designating certain caving areas for SRMAs is a good idea. Management of the caves as well as the overlying and surrounding areas is very important. The environment of the cave is directly related with the surface activities around it. This is especially true if the area is a direct ground water intake such as the Spanish Point Area in the Worland District.

1 I would recommend that the protection of surface and groundwater resources be listed as one of the major factors in the decision process for selecting alternatives in the RMP. Caves are usually associated with groundwater recharge areas. Surface waters entering caves not only affect the environmental balance of delicate cave systems, but usually directly affect groundwater quality of the areas aquifer. However, of the caves known in the Little Mountain and Sheep Mountain areas, this is probably not a problem since these caves are not actively involved with water recaharge areas. However, a large extent of the Madison Limestone and Big Horn Dolomite does directly bear on this problem. Both of which are the prime parent rock for caves in the district.

Cave Avenue *Huntsville, Alabama 35810* *AC 205 852-1300*



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2 2. Page 9; Table 2; Comparative Summary of Alternatives: Congratulations on the strong restrictions for surface activities over Natural Trap, Horsethief and Spirit Mountain caves. However, what about the other caves in the district? Sheep Mountain Caves for instance.

3. Page 20, " " Fire Management: Good.

3 4. Page 41, Table 2 " " Management Actions: The Worland District has been doing an excellent job in managing the caves on Little Mountain. I am happy to see that the SRMA would continue to be managed by them. Although this crosses jurisdictional boundaries, Big Horn Cave should be under the same jurisdiction as Horsethief Cave. This is the same cave system and should be protected and managed under a single cave resource management plan.

5. Page 124, Table 4; Management Actions in proposed ACECs: I strongly support the establishment of the Little Mountain Area as a ACEC. Again this should be expanded to include Big Horn Cave under a cooperative agreement with the NPS and Crow Indian Reservation.

4 6. Page 129, Table 4, Management Actions in Proposed ACECs: The establishment of an ACEC around the Sheep Mountain Anticline is also a very good idea. However, I am concerned that the cave resources in the proposed area are not specifically addressed in the plan. Spence Cave, Upper and Lower Kane Caves are amongst the important cave resources that will be affected. Request that you specifically identify these resources and include them in your proposed management actions.

5 7. Page 177, Cave Recreation, 3rd Paragraph on Natural Trap Cave: I would like to raise objection to the term ' high-risk activities'. Although cave exploration, rappelling and related rope work may seem a high-risk activity to the layman, however properly trained and equipped individuals are at a much lower risk. Untrained and/or poorly equipped individuals are certainly at high-risk. National statistics and reports published by the NSS annually verify this position.

6 8. Page 285, Consultation & Coordination; Organizations: I would request that the National Speleological Society be included in the future as a consultation organization for review and updates of this RMP. The NSS is the largest caving organization in the world representing thousands of individuals dedicated to the exploration, study and conservation of caves. We would very much like to offer our services and assist you in manageing caves in the Cody District.

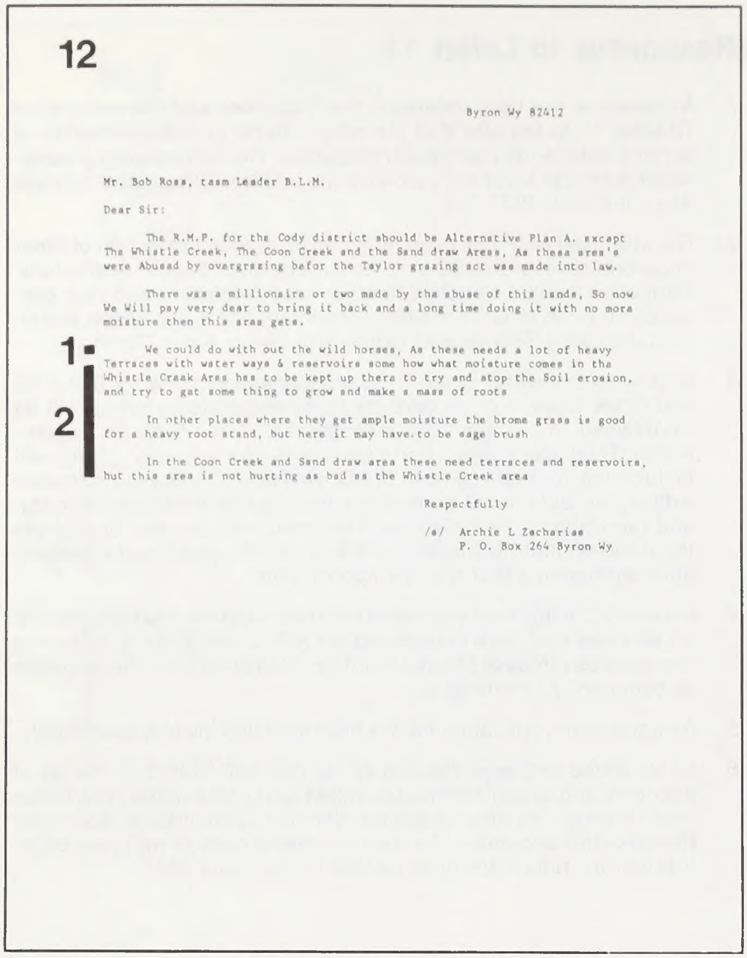
If I or the National Speleological Society can be of further assistance, please do not hesitate to call. Once again thank you for the opportunity to review and comment on the plan. The NSS appreciates your efforts to protect the caves in your District.

Sincerely,

John Scheltens
Executive Vice- President, NSS

Responses to Letter 11

1. A correction has been entered in the "Additions and Corrections for Chapter 1" to indicate that planning criteria include protection of surface water and groundwater resources. The protection of groundwater recharge areas is included in the preferred alternative on page 45 of the draft RMP/EIS.
2. The proposed RMP has been modified to include protection of other important caves with NSO and "no surface disturbance" restrictions. Protection would be applied to other important caves and cave passages on Little Mountain, Sheep Mountain and Little Sheep Mountain, including Spence and Upper and Lower Kane Caves.
3. According to the final Bighorn Cavern Management Plan (USDI, NPS and Crow Tribe, n.d.), a cave management advisory group will be established to oversee cave management in the Bighorn Cavern-Horse Thief Cave area. Participation in the advisory group will include representatives from the Crow Tribe, the Bureau of Indian Affairs, the BLM, local grottos, the National Speleological Society, and the National Park Service. This group will be able to address the issue of multiple jurisdictions and help to develop any cooperative agreements that may be appropriate.
4. Appendix J in this final document contains supplemental information on all areas that were considered for ACEC designation, including the cave resources of Sheep Mountain. Also please see the response to comment 2 of this letter.
5. We agree with your comment. We have modified the text accordingly.
6. As we stated on pages 284 and 285 of the draft RMP/EIS, the list of agencies and organizations consulted is representative, not inclusive. However, we have added the National Speleological Society to the list in this document. We will continue to consult with your organization for future activities related to the Cody RMP.



12

Byron Wy 82412

Mr. Bob Ross, team Leader B.L.M.

Dear Sir:

The R.M.P. for the Cody district should be Alternative Plan A. except The Whistle Creek, The Coon Creek and the Sand draw Areas, As these area's were Abused by overgrazing befor the Taylor grazing act was made into law.

There was a millionaire or two made by the abuse of this lands, So now We Will pay very dear to bring it back and a long time doing it with no more moisture then this area gets.

1 We could do with out the wild horses, As these needs a lot of heavy Terraces with water ways & reservoirs some how what moisture comes in the Whistle Creek Area has to be kept up there to try and stop the Soil erosion, and try to get some thing to grow and make a mass of roots

2 In other places where they get ample moisture the brome grass is good for a heavy root stand, but here it may have.to be sage brush

In the Coon Creek and Sand draw area these need terraces and reservoirs, hut this area is not hurting as bad as the Whistle Creek area

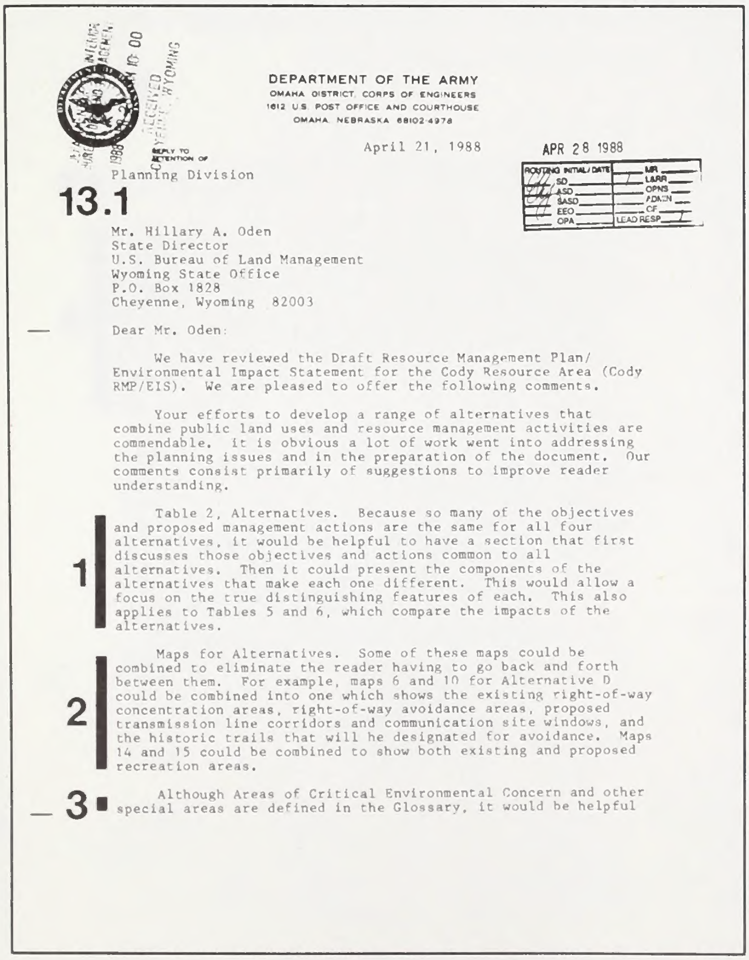
Respectfully

/s/ Archie L Zacharias
P. O. Box 264 Byron Wy

Responses to Letter 12

1. With the passage of the Wild and Free Roaming Horse and Burro Act of 1971 (Public Law 92-195), Congress mandated that the BLM must establish wild horse management areas and manage the horses to maintain viable healthy populations for public enjoyment. Wild horses inhabited the McCullough Peaks herd area before the act was passed. Under the proposed plan, the BLM would continue to maintain the horse population in this area at about 100 animals.

2. We appreciate your concern for the Whistle Creek, Coon Creek, and Sand Draw drainages. Through developing and implementing detailed activity plans, we hope to improve these areas as much as possible. (Activity planning is described in general response 1.) Some work already has been initiated on two grazing allotments in these general areas. These are high priority "I" (improve) category allotments slated for intensive management. The BLM is working with livestock permittees to develop AMPs; to establish proper stocking rates, seasons of use, and class of livestock; and to resolve resource problems and conflicts, including soil erosion. Future activity planning efforts for other resource management actions in these areas also would be aimed at improving their condition.



13.1

DEPARTMENT OF THE ARMY
OMAHA DISTRICT, CORPS OF ENGINEERS
1612 U.S. POST OFFICE AND COURTHOUSE
OMAHA, NEBRASKA 68102-4978

April 21, 1988

APR 28 1988

REPLY TO
ATTENTION OF
Planning Division

Mr. Hillary A. Oden
State Director
U.S. Bureau of Land Management
Wyoming State Office
P.O. Box 1828
Cheyenne, Wyoming 82003

Dear Mr. Oden:

We have reviewed the Draft Resource Management Plan/Environmental Impact Statement for the Cody Resource Area (Cody RMP/EIS). We are pleased to offer the following comments.

Your efforts to develop a range of alternatives that combine public land uses and resource management activities are commendable. it is obvious a lot of work went into addressing the planning issues and in the preparation of the document. Our comments consist primarily of suggestions to improve reader understanding.

1 Table 2, Alternatives. Because so many of the objectives and proposed management actions are the same for all four alternatives, it would be helpful to have a section that first discusses those objectives and actions common to all alternatives. Then it could present the components of the alternatives that make each one different. This would allow a focus on the true distinguishing features of each. This also applies to Tables 5 and 6, which compare the impacts of the alternatives.

2 Maps for Alternatives. Some of these maps could be combined to eliminate the reader having to go back and forth between them. For example, maps 6 and 10 for Alternative D could be combined into one which shows the existing right-of-way concentration areas, right-of-way avoidance areas, proposed transmission line corridors and communication site windows, and the historic trails that will he designated for avoidance. Maps 14 and 15 could be combined to show both existing and proposed recreation areas.

3 Although Areas of Critical Environmental Concern and other special areas are defined in the Glossary, it would be helpful

Responses to Letter 13

1. In summary tables 2, 4, 5, and 6, management actions common to all alternatives and impacts common to all alternatives are the parts of Alternatives B, C, and D that are described as "Same as Alternative A." It should be understood that there is no direct correlation between management actions common to all alternatives and impacts common to all alternatives because the common actions must be analyzed along with the uncommon actions of each alternative, not separately.

2. We cannot justify the expense to redraft maps from the draft RMP/EIS unless they absolutely must be modified for the final EIS. Your suggestion will be considered for future efforts.

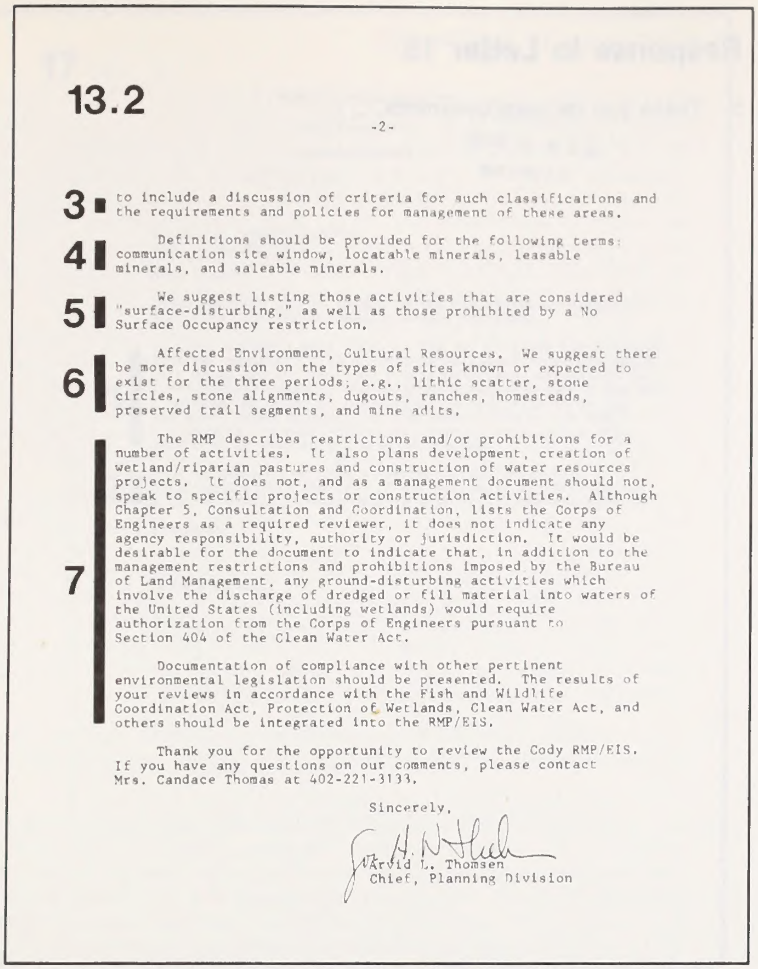
3. Appendix J in this final document contains supplemental information on all areas that were considered for ACEC designation, as well as a discussion of ACEC criteria.

4. The draft RMP/EIS glossary contains definitions of locatable, leasable, and salable minerals. We have included a definition for *communication site window* in the Glossary Supplement in this document.

5. Please see the definition of *surface-disturbing activity* in the Glossary Supplement of this document and the "Guidance" sections of appendix B, Wyoming BLM Standard Mitigation Guidelines. Please note that the basis for an NSO restriction is not simply certain types of activities; rather, the primary basis is what resources or resource values would be affected by any given activity, how important or sensitive the resource value is, and how much it would be affected. Thus, the need for an NSO restriction would vary with these factors as well as with geographic location.

6. The information that you request is readily available from various published and unpublished sources. Please see general response 2.

7. Thank you for the information concerning the responsibility and authority of the Corps of Engineers under the Clean Water Act.



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3 to include a discussion of criteria for such classifications and the requirements and policies for management of these areas.

4 Definitions should be provided for the following terms: communication site window, locatable minerals, leasable minerals, and saleable minerals.

5 We suggest listing those activities that are considered "surface-disturbing," as well as those prohibited by a No Surface Occupancy restriction.

6 Affected Environment, Cultural Resources. We suggest there be more discussion on the types of sites known or expected to exist for the three periods; e.g., lithic scatter, stone circles, stone alignments, dugouts, ranches, homesteads, preserved trail segments, and mine adits.

7 The RMP describes restrictions and/or prohibitions for a number of activities. It also plans development, creation of wetland/riparian pastures and construction of water resources projects. It does not, and as a management document should not, speak to specific projects or construction activities. Although Chapter 5, Consultation and Coordination, lists the Corps of Engineers as a required reviewer, it does not indicate any agency responsibility, authority or jurisdiction. It would be desirable for the document to indicate that, in addition to the management restrictions and prohibitions imposed by the Bureau of Land Management, any ground-disturbing activities which involve the discharge of dredged or fill material into waters of the United States (including wetlands) would require authorization from the Corps of Engineers pursuant to Section 404 of the Clean Water Act.

Documentation of compliance with other pertinent environmental legislation should be presented. The results of your reviews in accordance with the Fish and Wildlife Coordination Act, Protection of Wetlands, Clean Water Act, and others should be integrated into the RMP/EIS.

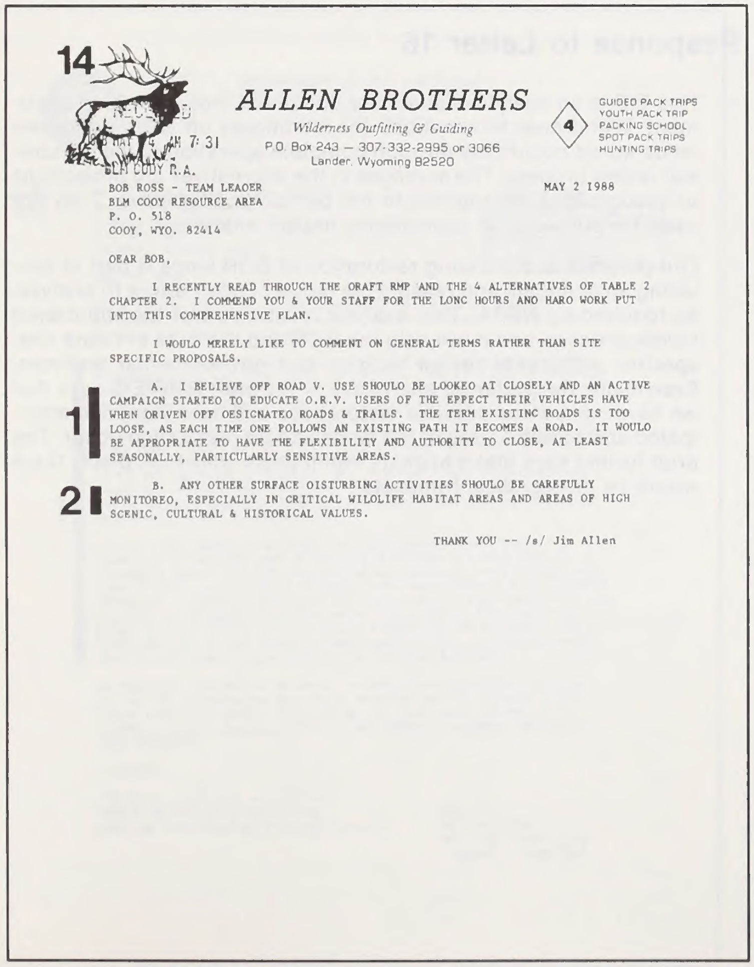
Thank you for the opportunity to review the Cody RMP/EIS. If you have any questions on our comments, please contact Mrs. Candace Thomas at 402-221-3133.

Sincerely,

Arvid L. Thomsen
Chief, Planning Division

As a general rule, RMP/EISs do not contain detailed discussions about the responsibilities, authority, and jurisdiction of other agencies. It is assumed that all applicable laws and regulations would be complied with before the BLM could implement any proposed RMP action or authorize others to implement actions or to conduct activities on BLM-administered public lands.

Like any RMP/EIS, this RMP/EIS contains much information that is based on consultation between the BLM and other agencies. Such consultation is required by the regulations of the Council on Environmental Quality (CEQ) and numerous other laws. It is not appropriate for all the specific results of consultation and the roles of other agencies and governmental entities to be described or for all relative laws and regulations to be cited in the RMP/EIS. This type of detail is more appropriate for the unpublished management situation analysis for the planning effort, which is available at the Cody Resource Area office. This information also may be available in publications generally available at libraries or from appropriate government agencies. Also please see general responses 1 and 2.



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ALLEN BROTHERS
Wilderness Outfitting & Guiding
P.O. Box 243 — 307-332-2995 or 3066
Lander, Wyoming 82520

GUIDED PACK TRIPS
YOUTH PACK TRIP
PACKING SCHOOL
SPOT PACK TRIPS
HUNTING TRIPS

RECEIVED
88 MAY 4 AM 7:31
BLM CODY R.A.

MAY 2 1988

BOB ROSS - TEAM LEAOER
BLM COOY RESOURCE AREA
P. O. 518
COOY, WYO. 82414

OEAR BOB,

I RECENTLY READ THROUCH THE ORAFT RMP AND THE 4 ALTERNATIVES OF TABLE 2 CHAPTER 2. I COMMEND YOU & YOUR STAFF FOR THE LONC HOURS ANO HARO WORK PUT INTO THIS COMPREHENSIVE PLAN.

I WOULO MERELY LIKE TO COMMENT ON GENERAL TERMS RATHER THAN SITE SPECIFIC PROPOSALS.

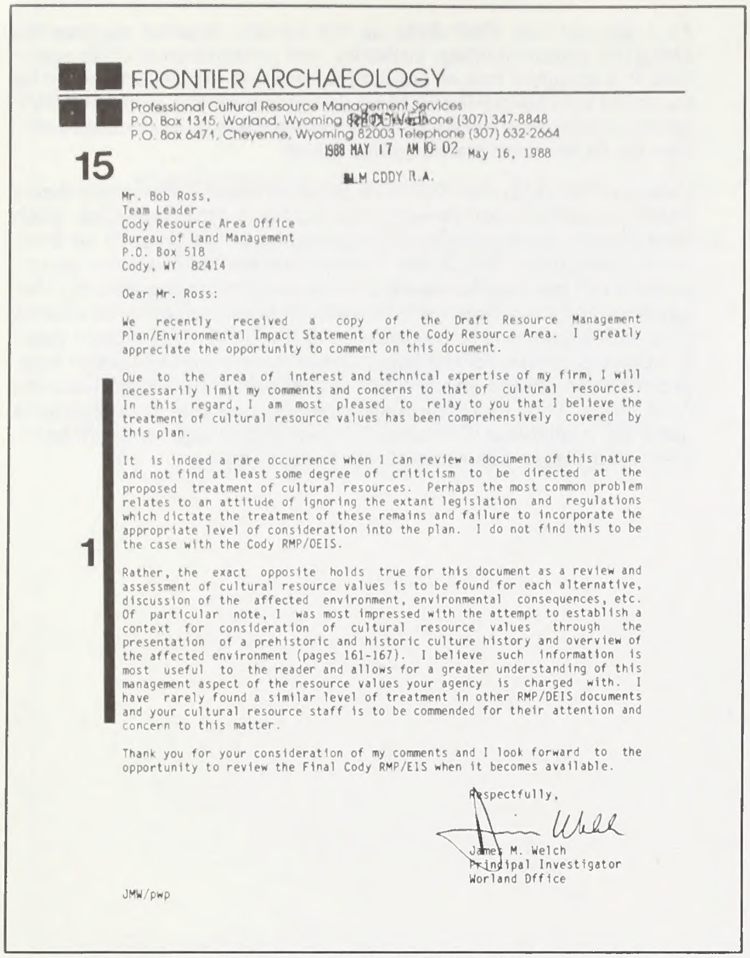
1 A. I BELIEVE OPP ROAD V. USE SHOULO BE LOOKEO AT CLOSELY AND AN ACTIVE CAMPAICN STARTEO TO EDUCATE O.R.V. USERS OF THE EPPECT THEIR VEHICLES HAVE WHEN ORIVEN OPF OESICNATEO ROADS & TRAILS. THE TERM EXISTINC ROADS IS TOO LOOSE, AS EACH TIME ONE POLLOWS AN EXISTING PATH IT BECOMES A ROAD. IT WOULO BE APPROPRIATE TO HAVE THE FLEXIBILITY AND AUTHORITY TO CLOSE, AT LEAST SEASONALLY, PARTICULARLY SENSITIVE AREAS.

2 B. ANY OTHER SURFACE OISTURBING ACTIVITIES SHOULO BE CAREFULLY MONITOREO, ESPECIALLY IN CRITICAL WILOLIFE HABITAT AREAS AND AREAS OF HIGH SCENIC, CULTURAL & HISTORICAL VALUES.

THANK YOU -- /s/ Jim Allen

Responses to Letter 14

1. Please see the response to comment 4 of letter 10.
2. Important wildlife habitat and areas of high scenic, cultural, and historic value are protected through use of the Wyoming BLM standard mitigation guidelines for surface-disturbing activities (see appendix B). Necessary stipulations and other conditions of land use are based on these guidelines, which are used in site-specific environmental analyses. The stipulations and conditions are made legally binding parts of authorizations for surface-disturbing activities. BLM inspection and enforcement specialists and surface protection specialists are required to inspect surface-disturbing activities to ensure that all conditions of use are complied with.



15

FRONTIER ARCHAEOLOGY
Professional Cultural Resource Management Services
P.O. Box 1315, Worland, Wyoming 82401 Telephone (307) 347-8848
P.O. Box 6471, Cheyenne, Wyoming 82003 Telephone (307) 632-2664

RECEIVED
1988 MAY 17 AM 10:02
BLM CODY R.A.

May 16, 1988

Mr. Bob Ross,
Team Leader
Cody Resource Area Office
Bureau of Land Management
P.O. Box 518
Cody, WY 82414

Dear Mr. Ross:

We recently received a copy of the Draft Resource Management Plan/Environmental Impact Statement for the Cody Resource Area. I greatly appreciate the opportunity to comment on this document.

1

Due to the area of interest and technical expertise of my firm, I will necessarily limit my comments and concerns to that of cultural resources. In this regard, I am most pleased to relay to you that I believe the treatment of cultural resource values has been comprehensively covered by this plan.

It is indeed a rare occurrence when I can review a document of this nature and not find at least some degree of criticism to be directed at the proposed treatment of cultural resources. Perhaps the most common problem relates to an attitude of ignoring the extant legislation and regulations which dictate the treatment of these remains and failure to incorporate the appropriate level of consideration into the plan. I do not find this to be the case with the Cody RMP/DEIS.

Rather, the exact opposite holds true for this document as a review and assessment of cultural resource values is to be found for each alternative, discussion of the affected environment, environmental consequences, etc. Of particular note, I was most impressed with the attempt to establish a context for consideration of cultural resource values through the presentation of a prehistoric and historic culture history and overview of the affected environment (pages 161-167). I believe such information is most useful to the reader and allows for a greater understanding of this management aspect of the resource values your agency is charged with. I have rarely found a similar level of treatment in other RMP/DEIS documents and your cultural resource staff is to be commended for their attention and concern to this matter.

Thank you for your consideration of my comments and I look forward to the opportunity to review the Final Cody RMP/EIS when it becomes available.

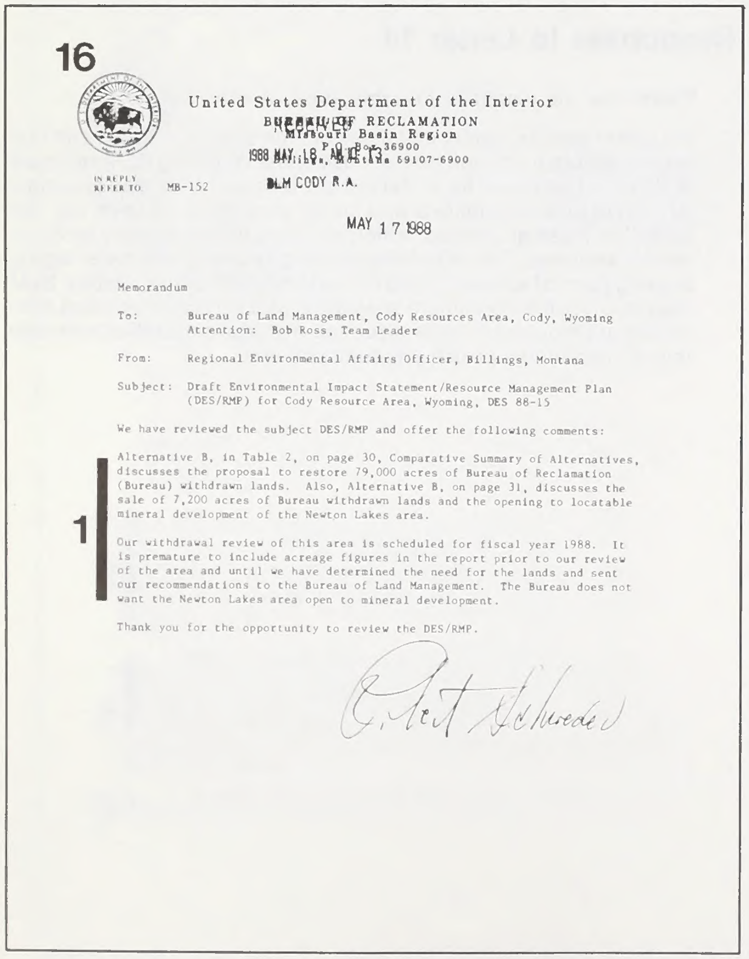
Respectfully,

James M. Welch
Principal Investigator
Worland Office

JMW/pwp

Response to Letter 15

1. Thank you for your comments.



16

United States Department of the Interior
BUREAU OF RECLAMATION
Missouri Basin Region
P.O. Box 36900
Billings, Montana 59107-6900

RECEIVED
1988 MAY 18 AM 10:13
BLM CODY R.A.

IN REPLY REFER TO: MB-152

MAY 17 1988

Memorandum

To: Bureau of Land Management, Cody Resources Area, Cody, Wyoming
Attention: Bob Ross, Team Leader

From: Regional Environmental Affairs Officer, Billings, Montana

Subject: Draft Environmental Impact Statement/Resource Management Plan (DES/RMP) for Cody Resource Area, Wyoming, DES 88-15

We have reviewed the subject DES/RMP and offer the following comments:

1

Alternative B, in Table 2, on page 30, Comparative Summary of Alternatives, discusses the proposal to restore 79,000 acres of Bureau of Reclamation (Bureau) withdrawn lands. Also, Alternative B, on page 31, discusses the sale of 7,200 acres of Bureau withdrawn lands and the opening to locatable mineral development of the Newton Lakes area.

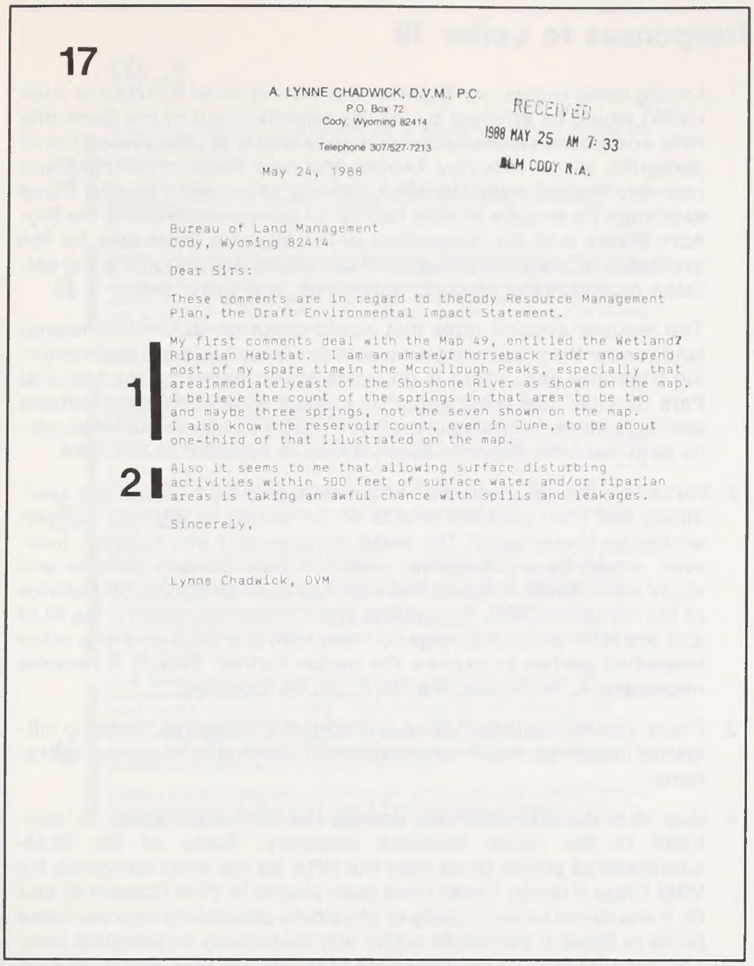
Our withdrawal review of this area is scheduled for fiscal year 1988. It is premature to include acreage figures in the report prior to our review of the area and until we have determined the need for the lands and sent our recommendations to the Bureau of Land Management. The Bureau does not want the Newton Lakes area open to mineral development.

Thank you for the opportunity to review the DES/RMP.

Response to Letter 16

1. This EIS is an analytical summary document, not a decision document. Withdrawal terminations (or retentions) on BOR withdrawn lands would occur only through complete operation of the withdrawal review process. The acreages in the alternatives are projections or assumptions appropriate to the particular alternative. They are used for purposes of comparative impact analysis.

   Our purpose in discussing restoration of BOR lands is part of providing an adequate and reasonable range of alternatives to analyze, as required by NEPA. This analysis is also part of the withdrawal review process, and it will help the BOR and the BLM in future site-specific withdrawal review studies and environmental analyses. Essentially, the preferred alternative in the draft RMP/EIS says that we have considered possible restorations and have identified anticipated and possible uses of the lands should restoration occur. The draft further says that it appears that if these uses took place, there would be no significant impacts.



17

A. LYNNE CHADWICK, D.V.M., P.C.
P.O. Box 72
Cody, Wyoming 82414

Telephone 307/527-7213

RECEIVED
1988 MAY 25 AM 7: 33
BLM CODY R.A.

May 24, 1988

Bureau of Land Management
Cody, Wyoming 82414

Dear Sirs:

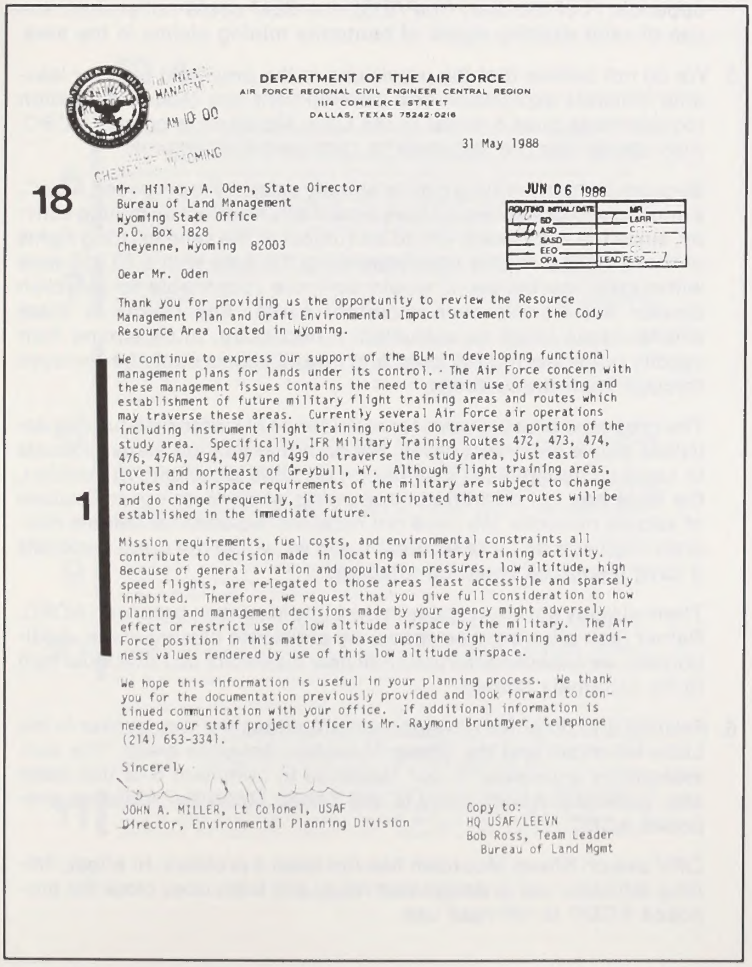
These comments are in regard to theCody Resource Management Plan, the Draft Environmental Impact Statement.

1 My first comments deal with the Map 49, entitled the Wetland? Riparian Habitat. I am an amateur horseback rider and spend most of my spare timein the Mccullough Peaks, especially that areaimmediatelyeast of the Shoshone River as shown on the map. I believe the count of the springs in that area to be two and maybe three springs, not the seven shown on the map. I also know the reservoir count, even in June, to be about one-third of that illustrated on the map.

2 Also it seems to me that allowing surface disturbing activities within 500 feet of surface water and/or riparian areas is taking an awful chance with spills and leakages.

Sincerely,

Lynne Chadwick, DVM



DEPARTMENT OF THE AIR FORCE
AIR FORCE REGIONAL CIVIL ENGINEER CENTRAL REGION
1114 COMMERCE STREET
DALLAS, TEXAS 75242-0216

AM 10 00
CHEYENNE WYOMING

31 May 1988

18

Mr. Hillary A. Oden, State Oirector
Bureau of Land Management
Wyoming State Office
P.O. Box 1828
Cheyenne, Wyoming 82003

JUN 06 1988

ROUTING INITIAL/DATE
SD
ASD
SASD
EEO
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MR
LARR
LEAD RESP

Oear Mr. Oden

Thank you for providing us the opportunity to review the Resource Management Plan and Oraft Environmental Impact Statement for the Cody Resource Area located in Wyoming.

1 We continue to express our support of the BLM in developing functional management plans for lands under its control. The Air Force concern with these management issues contains the need to retain use of existing and establishment of future military flight training areas and routes which may traverse these areas. Currently several Air Force air operations including instrument flight training routes do traverse a portion of the study area. Specifically, IFR Military Training Routes 472, 473, 474, 476, 476A, 494, 497 and 499 do traverse the study area, just east of Lovell and northeast of Greybull, WY. Although flight training areas, routes and airspace requirements of the military are subject to change and do change frequently, it is not anticipated that new routes will be established in the immediate future.

Mission requirements, fuel costs, and environmental constraints all contribute to decision made in locating a military training activity. Because of general aviation and population pressures, low altitude, high speed flights, are relegated to those areas least accessible and sparsely inhabited. Therefore, we request that you give full consideration to how planning and management decisions made by your agency might adversely effect or restrict use of low altitude airspace by the military. The Air Force position in this matter is based upon the high training and readiness values rendered by use of this low altitude airspace.

We hope this information is useful in your planning process. We thank you for the documentation previously provided and look forward to continued communication with your office. If additional information is needed, our staff project officer is Mr. Raymond Bruntmyer, telephone (214) 653-3341.

Sincerely

JOHN A. MILLER, Lt Colonel, USAF
Director, Environmental Planning Division

Copy to:
HQ USAF/LEEVN
Bob Ross, Team Leader
Bureau of Land Mgmt

Responses to Letter 17

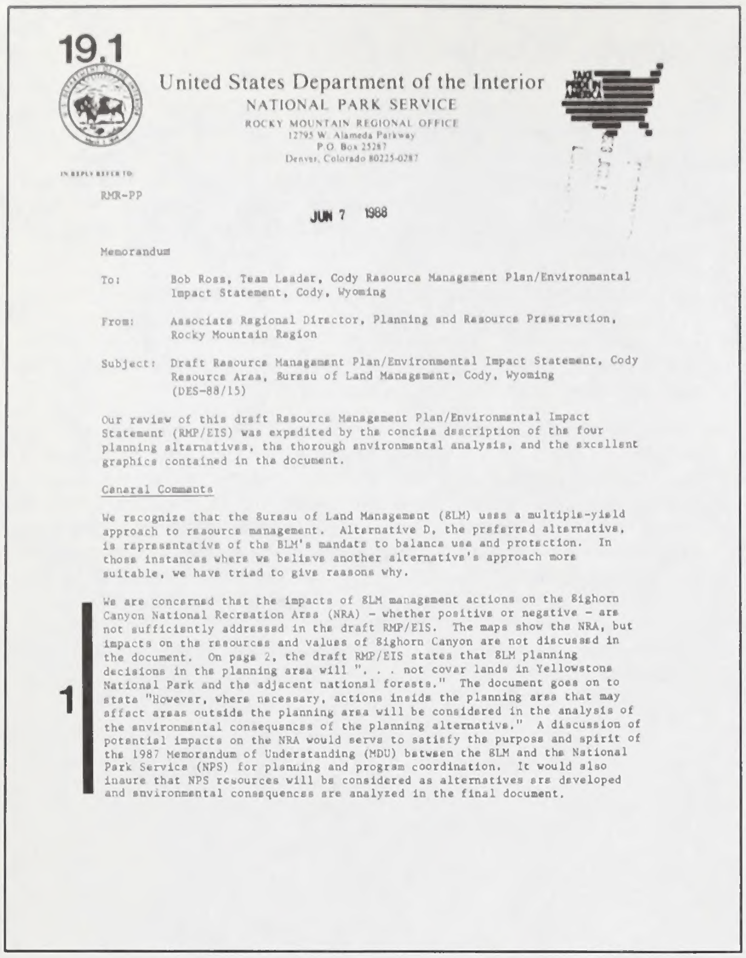
1. The purpose of map 49 is to show the general locations of springs, reservoirs, and streams that BLM is proposing for intensive wetland/riparian habitat management. Because of the map scale, there may appear to be a large concentration of water sources in the area that you mentioned. However, the 12 reservoirs and 5 springs shown near McCullough Peaks are actually scattered over an area of about 46,000 acres.

   More detailed maps of springs, reservoirs, and streams will be prepared for in conjunction with implementation of the Cody Wetlands HMP, and any errors in map 49 will be corrected in the course of this mapping. These more detailed maps will be made available for public review as they are developed.

   The 500-foot surface disturbance restriction near water is one of the standard mitigation guidelines described in appendix B. Although the 500-foot setback is a "standard," it is a guideline, not a rigid requirement. It was developed to fit most, not all, situations. Before the BLM authorizes a proposed activity, a site-specific environmental analysis is required. In the analysis, resource conflicts and their environmental consequences would be determined, including the potential for spills and leaks near a water source. The findings of the analysis would determine whether site-specific restrictions or requirements to prevent or mitigate spills and leaks should be included as conditions of the authorization.

Response to Letter 18

1. Our present aviation and fire suppression programs include consideration of all existing low-level military flight training routes. We do not anticipate any changes resulting from the Cody RMP that would affect military training flights.



19.1

United States Department of the Interior
NATIONAL PARK SERVICE
ROCKY MOUNTAIN REGIONAL OFFICE
12795 W. Alameda Parkway
P.O. Box 25287
Denver, Colorado 80225-0287

IN REPLY REFER TO:
RMR-PP

JUN 7 1988

Memorandum

To: Bob Ross, Team Leader, Cody Resource Management Plan/Environmental Impact Statement, Cody, Wyoming

From: Associate Regional Director, Planning and Resource Preservation, Rocky Mountain Region

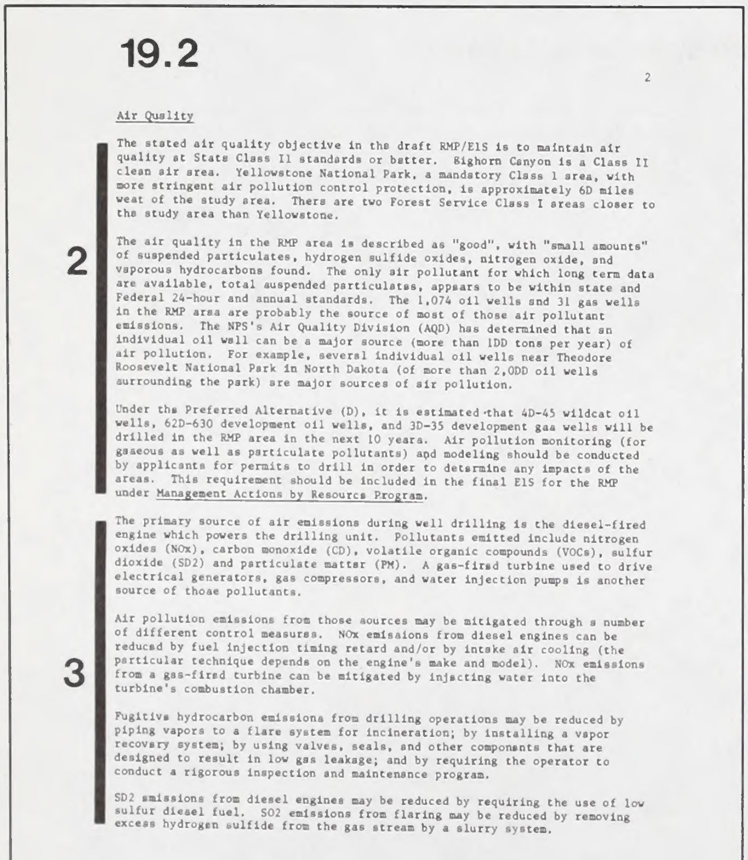
Subject: Draft Resource Management Plan/Environmental Impact Statement, Cody Resource Area, Bureau of Land Management, Cody, Wyoming (DES-88/15)

Our review of this draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) was expedited by the concise description of the four planning alternatives, the thorough environmental analysis, and the excellent graphics contained in the document.

General Comments

We recognize that the Bureau of Land Management (BLM) uses a multiple-yield approach to resource management. Alternative D, the preferred alternative, is representative of the BLM's mandate to balance use and protection. In those instances where we believe another alternative's approach more suitable, we have tried to give reasons why.

1 We are concerned that the impacts of BLM management actions on the Bighorn Canyon National Recreation Area (NRA) - whether positive or negative - are not sufficiently addressed in the draft RMP/EIS. The maps show the NRA, but impacts on the resources and values of Bighorn Canyon are not discussed in the document. On page 2, the draft RMP/EIS states that BLM planning decisions in the planning area will ". . . not cover lands in Yellowstone National Park and the adjacent national forests." The document goes on to state "However, where necessary, actions inside the planning area that may affect areas outside the planning area will be considered in the analysis of the environmental consequences of the planning alternative." A discussion of potential impacts on the NRA would serve to satisfy the purpose and spirit of the 1987 Memorandum of Understanding (MOU) between the BLM and the National Park Service (NPS) for planning and program coordination. It would also insure that NPS resources will be considered as alternatives are developed and environmental consequences are analyzed in the final document.



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2

Air Quality

2 The stated air quality objective in the draft RMP/EIS is to maintain air quality at State Class II standards or better. Bighorn Canyon is a Class II clean air area. Yellowstone National Park, a mandatory Class I area, with more stringent air pollution control protection, is approximately 60 miles west of the study area. There are two Forest Service Class I areas closer to the study area than Yellowstone.

The air quality in the RMP area is described as "good", with "small amounts" of suspended particulates, hydrogen sulfide oxides, nitrogen oxide, and vaporous hydrocarbons found. The only air pollutant for which long term data are available, total suspended particulates, appears to be within state and Federal 24-hour and annual standards. The 1,074 oil wells and 31 gas wells in the RMP area are probably the source of most of those air pollutant emissions. The NPS's Air Quality Division (AQD) has determined that an individual oil well can be a major source (more than 100 tons per year) of air pollution. For example, several individual oil wells near Theodore Roosevelt National Park in North Dakota (of more than 2,000 oil wells surrounding the park) are major sources of air pollution.

Under the Preferred Alternative (D), it is estimated that 40-45 wildcat oil wells, 620-630 development oil wells, and 30-35 development gas wells will be drilled in the RMP area in the next 10 years. Air pollution monitoring (for gaseous as well as particulate pollutants) and modeling should be conducted by applicants for permits to drill in order to determine any impacts of the areas. This requirement should be included in the final EIS for the RMP under Management Actions by Resource Program.

3 The primary source of air emissions during well drilling is the diesel-fired engine which powers the drilling unit. Pollutants emitted include nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOCs), sulfur dioxide (SO2) and particulate matter (PM). A gas-fired turbine used to drive electrical generators, gas compressors, and water injection pumps is another source of those pollutants.

Air pollution emissions from those sources may be mitigated through a number of different control measures. NOx emissions from diesel engines can be reduced by fuel injection timing retard and/or by intake air cooling (the particular technique depends on the engine's make and model). NOx emissions from a gas-fired turbine can be mitigated by injecting water into the turbine's combustion chamber.

Fugitive hydrocarbon emissions from drilling operations may be reduced by piping vapors to a flare system for incineration; by installing a vapor recovery system; by using valves, seals, and other components that are designed to result in low gas leakage; and by requiring the operator to conduct a rigorous inspection and maintenance program.

SO2 emissions from diesel engines may be reduced by requiring the use of low sulfur diesel fuel. SO2 emissions from flaring may be reduced by removing excess hydrogen sulfide from the gas stream by a slurry system.

Responses to Letter 19

1. Among other things, the Bighorn Canyon National Recreation Area (NRA) would be affected by (a) the establishment of the Bentonite Hills and Lovell Lakes motorcycle play areas, (b) the protection of peregrine falcon recovery habitat and bald eagle production and recovery habitat near the NRA, (c) the proposed Franklin Floyd exchange (to acquire wildlife habitat on private lands along the Bighorn River), and (d) designation of the Bighorn River area for the avoidance of overhead power lines (to reduce electrocutions and collision mortalities of raptors, waterbirds, and waterfowl).

   The reduced erosion rates that would occur on BLM-administered lands under the proposed plan would decrease sediment loads entering Bighorn Lake, which is on lands administered by the National Park Service. The NRA would be subject to environmental effects similar to those described in the RMP/EIS for BLM-administered public land near the Bighorn River, which is adjacent to the NRA.

2. We believe the issue you raise about emissions from oil and gas operations and their possible effects on air quality at Bighorn Canyon should be investigated. The lease requirements you suggest, however, would be a substantial deviation from current policies and might mean the BLM would be invading the jurisdictional boundaries of the Wyoming DEQ. To address your concerns properly, the BLM and the NPS should arrange to meet with the DEQ and any other interested parties to explore the matter further. Should it become necessary in the future, the RMP can be modified.

3. Thank you for the information on mitigative measures. Specific mitigative measures would be considered individually in use authorizations.

4. Map 16 in the draft RMP/EIS depicts the VRM class areas, as identified in the visual resource inventory. Some of the BLM-administered public lands near the NRA do not meet standards for VRM Class II lands. These have been placed in VRM Classes III and IV. It would not be technically or physically possible to improve these lands to Class II standards within any reasonably foreseeable time, and if the lands were to be managed for Class II VRM objectives (see appendix H of the draft RMP/EIS), the BLM could not prohibit the use of valid existing rights of bentonite mining claims in the area.

5. We do not believe that the provisions in the proposed plan for leasable minerals exploration and development and related mitigation requirements pose a threat to the Little Mountain proposed ACEC. Also please see the response to comment 5 of letter 4.

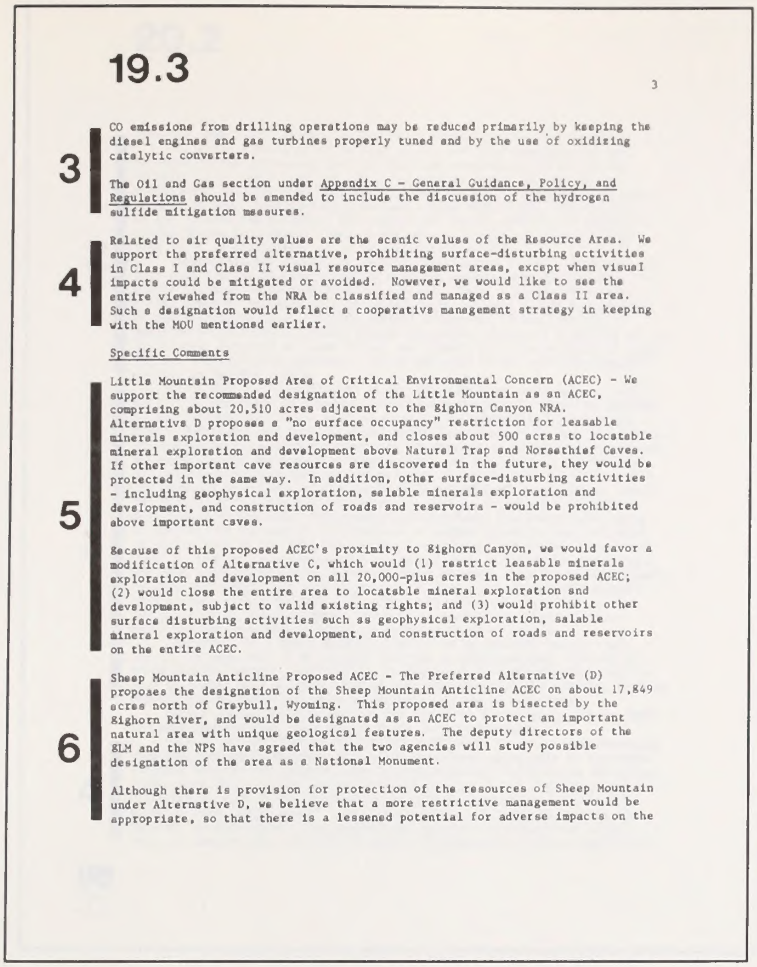
   Because so many mining claims already exist in the proposed ACEC, a mineral withdrawal would have essentially no effect on mining activity, since the withdrawal would be subject to the valid existing rights of these claims. Rather than blanketing the area with a 20,510-acre withdrawal, we believe it would be more reasonable to establish smaller withdrawals over important caves. Any claims in these smaller areas could be evaluated, if necessary, to determine their validity under the mining laws, and invalid claims could be removed through legal proceedings.

   The proposed plan provides for restrictions of surface-disturbing activities above important caves. We do not anticipate many requests to conduct geophysical exploration on Little Mountain. In addition, the BLM has full discretion concerning whether or not to dispose of salable minerals. We have not received requests for salable minerals disposals on Little Mountain, and we would not grant disposals if cave resources could be affected.

   There already are many roads in the Little Mountain proposed ACEC. Rather than allowing new roads, we anticipate closing some. Additionally, we expect construction of new reservoirs on Little Mountain to be extremely limited.

6. Existing and potential development situations are very similar in the Little Mountain and the Sheep Mountain Anticline areas. The considerations expressed in our response to comment 5 of this letter also generally would apply to the Sheep Mountain Anticline proposed ACEC.

   ORV use on Sheep Mountain has not been a problem. In effect, limiting vehicular use to designated roads and trails does close the proposed ACEC to off-road use.



19.3

3

3 CO emissions from drilling operations may be reduced primarily by keeping the diesel engines and gas turbines properly tuned and by the use of oxidizing catalytic converters.

The Oil and Gas section under Appendix C - General Guidance, Policy, and Regulations should be amended to include the discussion of the hydrogen sulfide mitigation measures.

4 Related to air quality values are the scenic values of the Resource Area. We support the preferred alternative, prohibiting surface-disturbing activities in Class I and Class II visual resource management areas, except when visual impacts could be mitigated or avoided. However, we would like to see the entire viewshed from the NRA be classified and managed as a Class II area. Such a designation would reflect a cooperative management strategy in keeping with the MOU mentioned earlier.

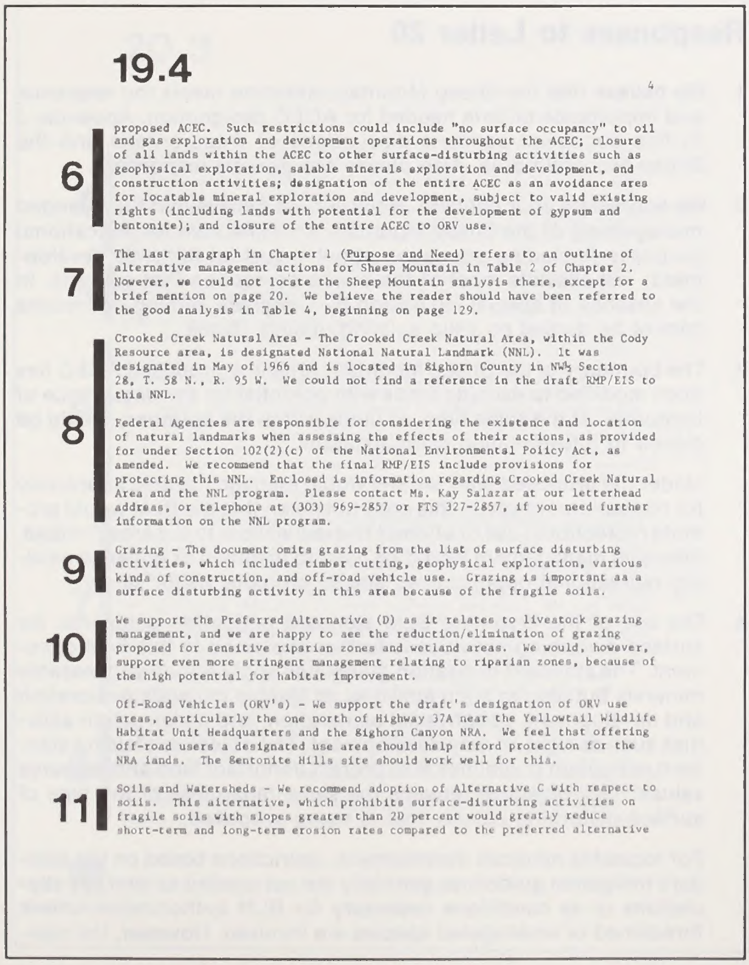
Specific Comments

5 Little Mountain Proposed Area of Critical Environmental Concern (ACEC) - We support the recommended designation of the Little Mountain as an ACEC, comprising about 20,510 acres adjacent to the Bighorn Canyon NRA. Alternative D proposes a "no surface occupancy" restriction for leasable minerals exploration and development, and closes about 500 acres to locatable mineral exploration and development above Natural Trap and Horsethief Caves. If other important cave resources are discovered in the future, they would be protected in the same way. In addition, other surface-disturbing activities - including geophysical exploration, salable minerals exploration and development, and construction of roads and reservoirs - would be prohibited above important caves.

Because of this proposed ACEC's proximity to Bighorn Canyon, we would favor a modification of Alternative C, which would (1) restrict leasable minerals exploration and development on all 20,000-plus acres in the proposed ACEC; (2) would close the entire area to locatable mineral exploration and development, subject to valid existing rights; and (3) would prohibit other surface disturbing activities such as geophysical exploration, salable mineral exploration and development, and construction of roads and reservoirs on the entire ACEC.

6 Sheep Mountain Anticline Proposed ACEC - The Preferred Alternative (D) proposes the designation of the Sheep Mountain Anticline ACEC on about 17,849 acres north of Greybull, Wyoming. This proposed area is bisected by the Bighorn River, and would be designated as an ACEC to protect an important natural area with unique geological features. The deputy directors of the BLM and the NPS have agreed that the two agencies will study possible designation of the area as a National Monument.

Although there is provision for protection of the resources of Sheep Mountain under Alternative D, we believe that a more restrictive management would be appropriate, so that there is a lessened potential for adverse impacts on the



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4

6 proposed ACEC. Such restrictions could include "no surface occupancy" to oil and gas exploration and development operations throughout the ACEC; closure of all lands within the ACEC to other surface-disturbing activities such as geophysical exploration, salable minerals exploration and development, and construction activities; designation of the entire ACEC as an avoidance area for locatable mineral exploration and development, subject to valid existing rights (including lands with potential for the development of gypsum and bentonite); and closure of the entire ACEC to ORV use.

7 The last paragraph in Chapter 1 (Purpose and Need) refers to an outline of alternative management actions for Sheep Mountain in Table 2 of Chapter 2. However, we could not locate the Sheep Mountain analysis there, except for a brief mention on page 20. We believe the reader should have been referred to the good analysis in Table 4, beginning on page 129.

8 Crooked Creek Natural Area - The Crooked Creek Natural Area, within the Cody Resource area, is designated National Natural Landmark (NNL). It was designated in May of 1966 and is located in Bighorn County in NW¼ Section 28, T. 58 N., R. 95 W. We could not find a reference in the draft RMP/EIS to this NNL.

Federal Agencies are responsible for considering the existence and location of natural landmarks when assessing the effects of their actions, as provided for under Section 102(2)(c) of the National Environmental Policy Act, as amended. We recommend that the final RMP/EIS include provisions for protecting this NNL. Enclosed is information regarding Crooked Creek Natural Area and the NNL program. Please contact Ms. Kay Salazar at our letterhead address, or telephone at (303) 969-2857 or FTS 327-2857, if you need further information on the NNL program.

9 Grazing - The document omits grazing from the list of surface disturbing activities, which included timber cutting, geophysical exploration, various kinds of construction, and off-road vehicle use. Grazing is important as a surface disturbing activity in this area because of the fragile soils.

10 We support the Preferred Alternative (D) as it relates to livestock grazing management, and we are happy to see the reduction/elimination of grazing proposed for sensitive riparian zones and wetland areas. We would, however, support even more stringent management relating to riparian zones, because of the high potential for habitat improvement.

Off-Road Vehicles (ORV's) - We support the draft's designation of ORV use areas, particularly the one north of Highway 37A near the Yellowtail Wildlife Habitat Unit Headquarters and the Bighorn Canyon NRA. We feel that offering off-road users a designated use area should help afford protection for the NRA lands. The Bentonite Hills site should work well for this.

11 Soils and Watersheds - We recommend adoption of Alternative C with respect to soils. This alternative, which prohibits surface-disturbing activities on fragile soils with slopes greater than 20 percent would greatly reduce short-term and long-term erosion rates compared to the preferred alternative

7. Thank you for bringing this discrepancy to our attention. We have modified the text according to your suggestion.

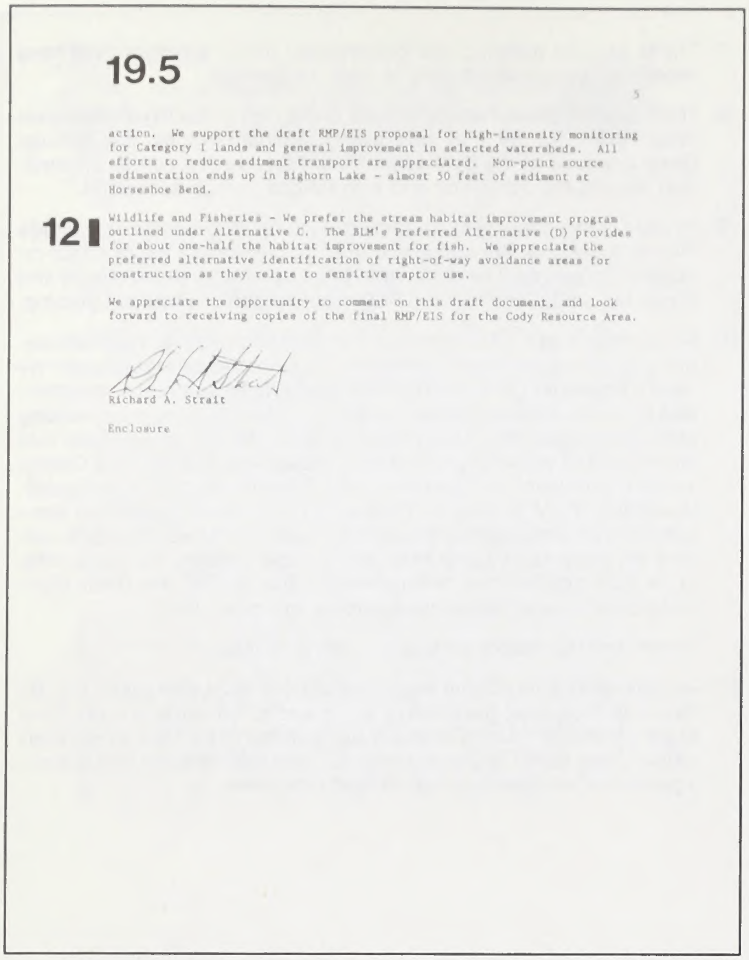
8. The Crooked Creek Natural Area is in the part of the Pryor Mountain Wild Horse Range that has been administered by the Billings Resource Area of the BLM since 1969. We have placed this information among the additions and corrections in this document.

9. As used in this document, surface-disturbing activities do not include livestock grazing. We agree that grazing can have a major effect on surface resources. The draft RMP/EIS summarizes these effects and states the limitations that the BLM would place on livestock grazing.

10. As we described for Alternative D, the BLM also believes riparian habitat should be managed stringently. Under the proposed plan we would implement a wetlands HMP specifically to create, maintain, and improve wetland/riparian systems in the planning area. Among planned actions of the wetlands plan would be the requirement that all new AMPs would incorporate the objectives of Executive Orders 11988 (floodplain management) and 11990 (protection of wetlands). In addition, BLM policies and procedures concerning wetlands management are described in the *Federal Register* of March 15, 1979, volume 44, page 15,784 and February 5, 1980, volume 45, page 7889, in the BLM riparian area management policy of 1987, and in the Wyoming BLM riparian area management policy of 1987.

11. Please see the response to comment 5 of letter 3.

12. As regards stream habitat improvement, the BLM also prefers Alternative C. However, livestock grazing and other surface uses need to be allowed within the multiple use context of FLPMA. With Alternative D we have tried to achieve an equitable balance in the management of all resource values and land uses.



19.5

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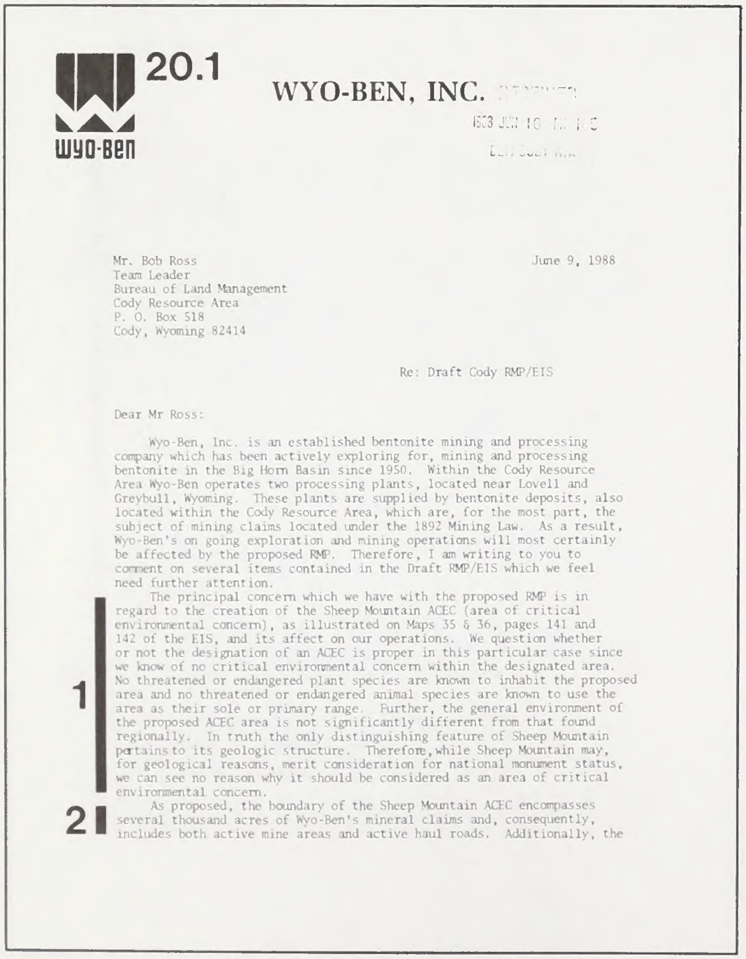
action. We support the draft RMP/EIS proposal for high-intensity monitoring for Category I lands and general improvement in selected watersheds. All efforts to reduce sediment transport are appreciated. Non-point source sedimentation ends up in Bighorn Lake - almost 50 feet of sediment at Horseshoe Bend.

12 Wildlife and Fisheries - We prefer the stream habitat improvement program outlined under Alternative C. The BLM's Preferred Alternative (D) provides for about one-half the habitat improvement for fish. We appreciate the preferred alternative identification of right-of-way avoidance areas for construction as they relate to sensitive raptor use.

We appreciate the opportunity to comment on this draft document, and look forward to receiving copies of the final RMP/EIS for the Cody Resource Area.

Richard A. Strait

Enclosure



20.1

wyo-ben

WYO-BEN, INC.

1988 JUN 10 [illegible]

Mr. Bob Ross
Team Leader
Bureau of Land Management
Cody Resource Area
P. O. Box 518
Cody, Wyoming 82414

June 9, 1988

Re: Draft Cody RMP/EIS

Dear Mr Ross:

Wyo-Ben, Inc. is an established bentonite mining and processing company which has been actively exploring for, mining and processing bentonite in the Big Horn Basin since 1950. Within the Cody Resource Area Wyo-Ben operates two processing plants, located near Lovell and Greybull, Wyoming. These plants are supplied by bentonite deposits, also located within the Cody Resource Area, which are, for the most part, the subject of mining claims located under the 1892 Mining Law. As a result, Wyo-Ben's on going exploration and mining operations will most certainly be affected by the proposed RMP. Therefore, I am writing to you to comment on several items contained in the Draft RMP/EIS which we feel need further attention.

1 The principal concern which we have with the proposed RMP is in regard to the creation of the Sheep Mountain ACEC (area of critical environmental concern), as illustrated on Maps 35 & 36, pages 141 and 142 of the EIS, and its affect on our operations. We question whether or not the designation of an ACEC is proper in this particular case since we know of no critical environmental concern within the designated area. No threatened or endangered plant species are known to inhabit the proposed area and no threatened or endangered animal species are known to use the area as their sole or primary range. Further, the general environment of the proposed ACEC area is not significantly different from that found regionally. In truth the only distinguishing feature of Sheep Mountain pertains to its geologic structure. Therefore, while Sheep Mountain may, for geological reasons, merit consideration for national monument status, we can see no reason why it should be considered as an area of critical environmental concern.

2 As proposed, the boundary of the Sheep Mountain ACEC encompasses several thousand acres of Wyo-Ben's mineral claims and, consequently, includes both active mine areas and active haul roads. Additionally, the

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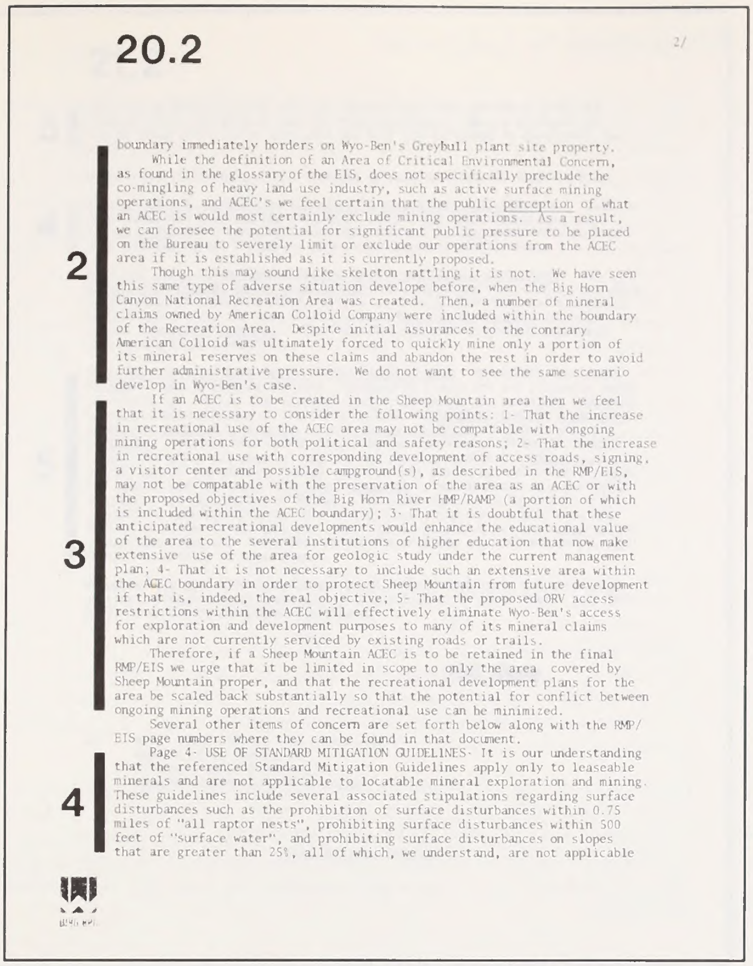
Responses to Letter 20

1. We believe that the Sheep Mountain Anticline meets the relevance and importance criteria needed for ACEC designation. Appendix J to this document contains discussions of these criteria and the Sheep Mountain area. Also please see general response 4.
2. We appreciate your concern. However, we believe that the intended management of the Sheep Mountain Anticline area for educational purposes (including education about industrial minerals development) will alleviate most of the public perception that you cite. In the absence of special legislation by Congress, mining operations cannot be denied on valid existing mining claims.
3. The boundary of the Sheep Mountain Anticline proposed ACEC has been modified to exclude lands with potential for the occurrence of bentonite. At the same time, all lands within the boundary would be closed to future mining claim location.

   Under the proposed plan, we still would manage the area intensively for recreation. However, this does not mean that the BLM would promote recreational use or attempt to draw visitors to the area. Instead, intensive management would be used to maintain or enhance existing recreational opportunities and to promote visitor safety.
4. The use of the Wyoming BLM standard mitigation guidelines for surface-disturbing activities is further explained in this final document. The standard mitigation guidelines apply not only to leasable minerals but also to such activities as salable minerals exploration and development, geophysical exploration, and construction activities such as right-of-way development. The objective of using standard mitigation guidelines is to protect important land and resource values. This objective remains the same regardless of the type of surface-disturbing activity that is being proposed.

   For locatable minerals development, restrictions based on the standard mitigation guidelines generally are not applied as land use stipulations or as conditions necessary for BLM authorization unless threatened or endangered species are involved. However, the stan-



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boundary immediately borders on Wyo-Ben's Greybull plant site property.

2 While the definition of an Area of Critical Environmental Concern, as found in the glossary of the EIS, does not specifically preclude the co-mingling of heavy land use industry, such as active surface mining operations, and ACEC's we feel certain that the public perception of what an ACEC is would most certainly exclude mining operations. As a result, we can foresee the potential for significant public pressure to be placed on the Bureau to severely limit or exclude our operations from the ACEC area if it is established as it is currently proposed.

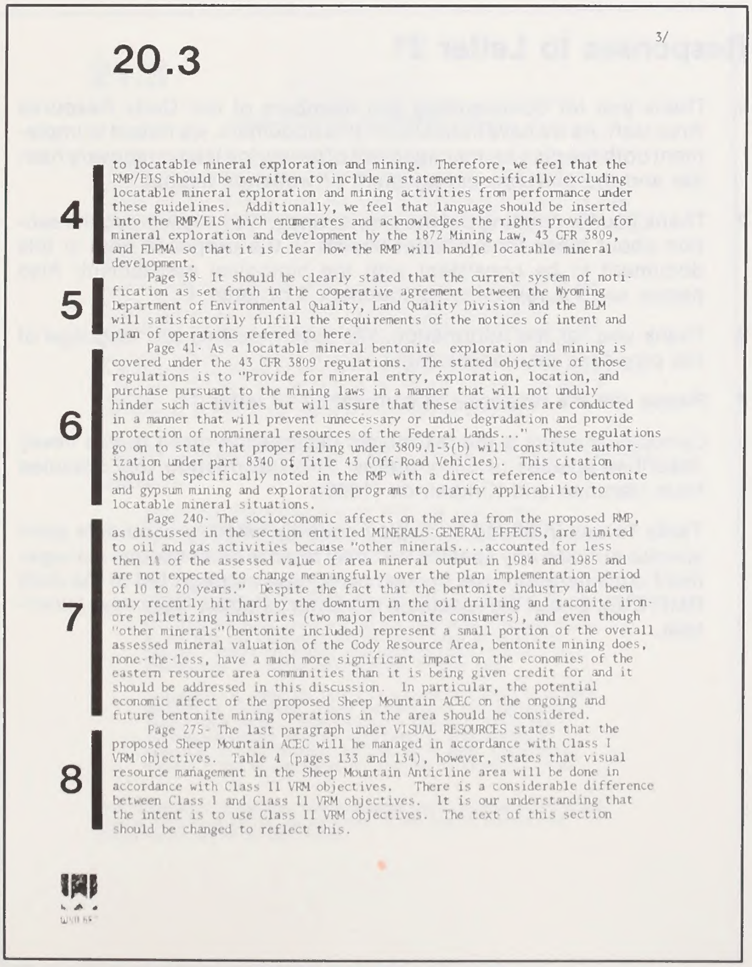
Though this may sound like skeleton rattling it is not. We have seen this same type of adverse situation develope before, when the Big Horn Canyon National Recreation Area was created. Then, a number of mineral claims owned by American Colloid Company were included within the boundary of the Recreation Area. Despite initial assurances to the contrary American Colloid was ultimately forced to quickly mine only a portion of its mineral reserves on these claims and abandon the rest in order to avoid further administrative pressure. We do not want to see the same scenario develop in Wyo-Ben's case.

3 If an ACEC is to be created in the Sheep Mountain area then we feel that it is necessary to consider the following points: 1- That the increase in recreational use of the ACEC area may not be compatable with ongoing mining operations for both political and safety reasons; 2- That the increase in recreational use with corresponding development of access roads, signing, a visitor center and possible campground(s), as described in the RMP/EIS, may not be compatable with the preservation of the area as an ACEC or with the proposed objectives of the Big Horn River HMP/RAMP (a portion of which is included within the ACEC boundary); 3- That it is doubtful that these anticipated recreational developments would enhance the educational value of the area to the several institutions of higher education that now make extensive use of the area for geologic study under the current management plan; 4- That it is not necessary to include such an extensive area within the ACEC boundary in order to protect Sheep Mountain from future development if that is, indeed, the real objective; 5- That the proposed ORV access restrictions within the ACEC will effectively eliminate Wyo-Ben's access for exploration and development purposes to many of its mineral claims which are not currently serviced by existing roads or trails.

Therefore, if a Sheep Mountain ACEC is to be retained in the final RMP/EIS we urge that it be limited in scope to only the area covered by Sheep Mountain proper, and that the recreational development plans for the area be scaled back substantially so that the potential for conflict between ongoing mining operations and recreational use can be minimized.

Several other items of concern are set forth below along with the RMP/EIS page numbers where they can be found in that document.

4 Page 4- USE OF STANDARD MITIGATION GUIDELINES- It is our understanding that the referenced Standard Mitigation Guidelines apply only to leaseable minerals and are not applicable to locatable mineral exploration and mining. These guidelines include several associated stipulations regarding surface disturbances such as the prohibition of surface disturbances within 0.75 miles of "all raptor nests", prohibiting surface disturbances within 500 feet of "surface water", and prohibiting surface disturbances on slopes that are greater than 25%, all of which, we understand, are not applicable



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4 to locatable mineral exploration and mining. Therefore, we feel that the RMP/EIS should be rewritten to include a statement specifically excluding locatable mineral exploration and mining activities from performance under these guidelines. Additionally, we feel that language should be inserted into the RMP/EIS which enumerates and acknowledges the rights provided for mineral exploration and development by the 1872 Mining Law, 43 CFR 3809, and FLPMA so that it is clear how the RMP will handle locatable mineral development.

5 Page 38- It should be clearly stated that the current system of notification as set forth in the cooperative agreement between the Wyoming Department of Environmental Quality, Land Quality Division and the BLM will satisfactorily fulfill the requirements of the notices of intent and plan of operations refered to here.

6 Page 41- As a locatable mineral bentonite exploration and mining is covered under the 43 CFR 3809 regulations. The stated objective of those regulations is to "Provide for mineral entry, exploration, location, and purchase pursuant to the mining laws in a manner that will not unduly hinder such activities but will assure that these activities are conducted in a manner that will prevent unnecessary or undue degradation and provide protection of nonmineral resources of the Federal Lands..." These regulations go on to state that proper filing under 3809.1-3(b) will constitute authorization under part 8340 of Title 43 (Off-Road Vehicles). This citation should be specifically noted in the RMP with a direct reference to bentonite and gypsum mining and exploration programs to clarify applicability to locatable mineral situations.

7 Page 240- The socioeconomic affects on the area from the proposed RMP, as discussed in the section entitled MINERALS-GENERAL EFFECTS, are limited to oil and gas activities because "other minerals....accounted for less then 1% of the assessed value of area mineral output in 1984 and 1985 and are not expected to change meaningfully over the plan implementation period of 10 to 20 years." Despite the fact that the bentonite industry had been only recently hit hard by the downturn in the oil drilling and taconite iron-ore pelletizing industries (two major bentonite consumers), and even though "other minerals"(bentonite included) represent a small portion of the overall assessed mineral valuation of the Cody Resource Area, bentonite mining does, none-the-less, have a much more significant impact on the economies of the eastern resource area communities than it is being given credit for and it should be addressed in this discussion. In particular, the potential economic affect of the proposed Sheep Mountain ACEC on the ongoing and future bentonite mining operations in the area should be considered.

8 Page 275- The last paragraph under VISUAL RESOURCES states that the proposed Sheep Mountain ACEC will be managed in accordance with Class I VRM objectives. Table 4 (pages 133 and 134), however, states that visual resource management in the Sheep Mountain Anticline area will be done in accordance with Class II VRM objectives. There is a considerable difference between Class I and Class II VRM objectives. It is our understanding that the intent is to use Class II VRM objectives. The text of this section should be changed to reflect this.

dard mitigation guidelines can be applied to mining claim activities to protect any resource value. Such application can be based on negotiations between claim operators, the BLM, and the Wyoming DEQ. The BLM will continue to make use of these opportunities for negotiation.

Concerning mining law rights, please see general response 1.

5. The requirements and provisions for filing notices and plans of operations under federal regulations 43 CFR 3809 or the BLM/DEQ agreement are not subject to modification by anything contained in this RMP/EIS. Therefore, standard requirements and provisions established by regulation and the cooperative agreement are not discussed in this plan. Also please see general response 1.

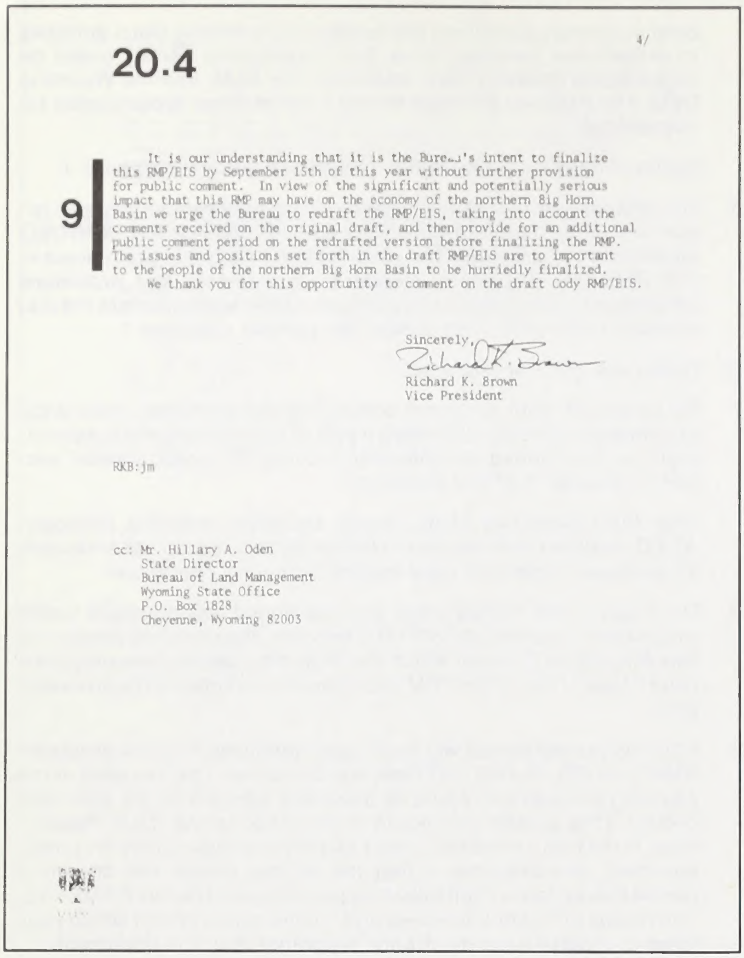
6. Please see general response 1.

7. We agree with your comment concerning the economic importance of bentonite mining in the eastern part of the planning area. Accordingly, we have added new information to the "Socioeconomics" section in chapter 4 of this document.

   With the boundaries of the Sheep Mountain Anticline proposed ACEC modified as described in this document, we do not anticipate an economic effect on local bentonite mining operations.

8. The Class I VRM management you mentioned was proposed under Alternative C in the draft RMP/EIS; however, the preferred alternative was Alternative D, under which the VRM management was proposed to be Class II. This is the VRM management included in the proposed plan.

9. A 30-day protest period will begin upon publication of this proposed RMP/final EIS. During that time, any person who participated in the planning process and could be adversely affected by the plan may protest. (The protest procedure is described in the "Dear Reader" letter in the front of this document.) A previous opportunity for public comment was available during the 90-day review and comment period that began in April following publication of the draft RMP/EIS. The results of that public review and comment period—of which your letter is a part—have been fully integrated into this document.



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9 It is our understanding that it is the Bureau's intent to finalize this RMP/EIS by September 15th of this year without further provision for public comment. In view of the significant and potentially serious impact that this RMP may have on the economy of the northern Big Horn Basin we urge the Bureau to redraft the RMP/EIS, taking into account the comments received on the original draft, and then provide for an additional public comment period on the redrafted version before finalizing the RMP. The issues and positions set forth in the draft RMP/EIS are to important to the people of the northern Big Horn Basin to be hurriedly finalized.

We thank you for this opportunity to comment on the draft Cody RMP/EIS.

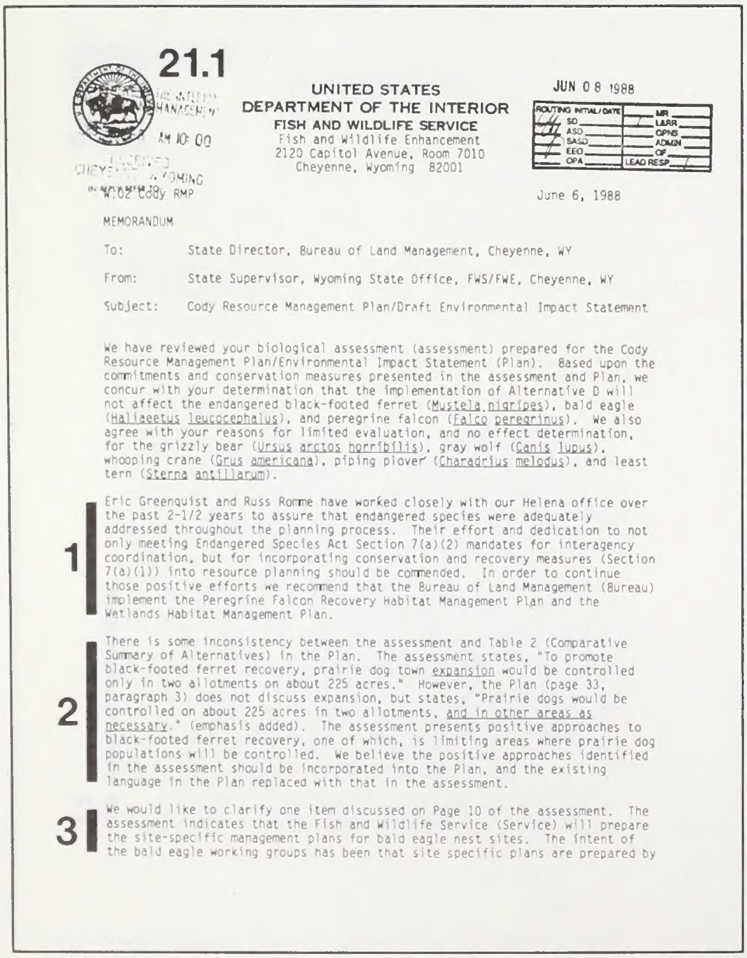
Sincerely,

Richard K. Brown

Richard K. Brown
Vice President

RKB:jm

cc: Mr. Hillary A. Oden
State Director
Bureau of Land Management
Wyoming State Office
P.O. Box 1828
Cheyenne, Wyoming 82003



21.1

RECEIVED
AM 10 00
CHEYENNE, WYOMING

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Fish and Wildlife Enhancement
2120 Capitol Avenue, Room 7010
Cheyenne, Wyoming 82001

JUN 08 1988

ROUTING INITIAL/DATE	
SO	MR
ASD	LARR
SASD	OPNS
EEO	ADMIN
OPA	OF
	LEAD RESP

IN REPLY REFER TO:
W.02 Cody RMP

June 6, 1988

MEMORANDUM

To: State Director, Bureau of Land Management, Cheyenne, WY

From: State Supervisor, Wyoming State Office, FWS/FWE, Cheyenne, WY

Subject: Cody Resource Management Plan/Draft Environmental Impact Statement

We have reviewed your biological assessment (assessment) prepared for the Cody Resource Management Plan/Environmental Impact Statement (Plan). Based upon the commitments and conservation measures presented in the assessment and Plan, we concur with your determination that the implementation of Alternative D will not affect the endangered black-footed ferret (Mustela nigripes), bald eagle (Haliaeetus leucocephalus), and peregrine falcon (Falco peregrinus). We also agree with your reasons for limited evaluation, and no effect determination, for the grizzly bear (Ursus arctos horribilis), gray wolf (Canis lupus), whooping crane (Grus americana), piping plover (Charadrius melodus), and least tern (Sterna antillarum).

1 Eric Greenquist and Russ Romme have worked closely with our Helena office over the past 2-1/2 years to assure that endangered species were adequately addressed throughout the planning process. Their effort and dedication to not only meeting Endangered Species Act Section 7(a)(2) mandates for interagency coordination, but for incorporating conservation and recovery measures (Section 7(a)(1)) into resource planning should be commended. In order to continue those positive efforts we recommend that the Bureau of Land Management (Bureau) implement the Peregrine Falcon Recovery Habitat Management Plan and the Wetlands Habitat Management Plan.

2 There is some inconsistency between the assessment and Table 2 (Comparative Summary of Alternatives) in the Plan. The assessment states, "To promote black-footed ferret recovery, prairie dog town expansion would be controlled only in two allotments on about 225 acres." However, the Plan (page 33, paragraph 3) does not discuss expansion, but states, "Prairie dogs would be controlled on about 225 acres in two allotments, and in other areas as necessary." (emphasis added). The assessment presents positive approaches to black-footed ferret recovery, one of which, is limiting areas where prairie dog populations will be controlled. We believe the positive approaches identified in the assessment should be incorporated into the Plan, and the existing language in the Plan replaced with that in the assessment.

3 We would like to clarify one item discussed on Page 10 of the assessment. The assessment indicates that the Fish and Wildlife Service (Service) will prepare the site-specific management plans for bald eagle nest sites. The intent of the bald eagle working groups has been that site specific plans are prepared by

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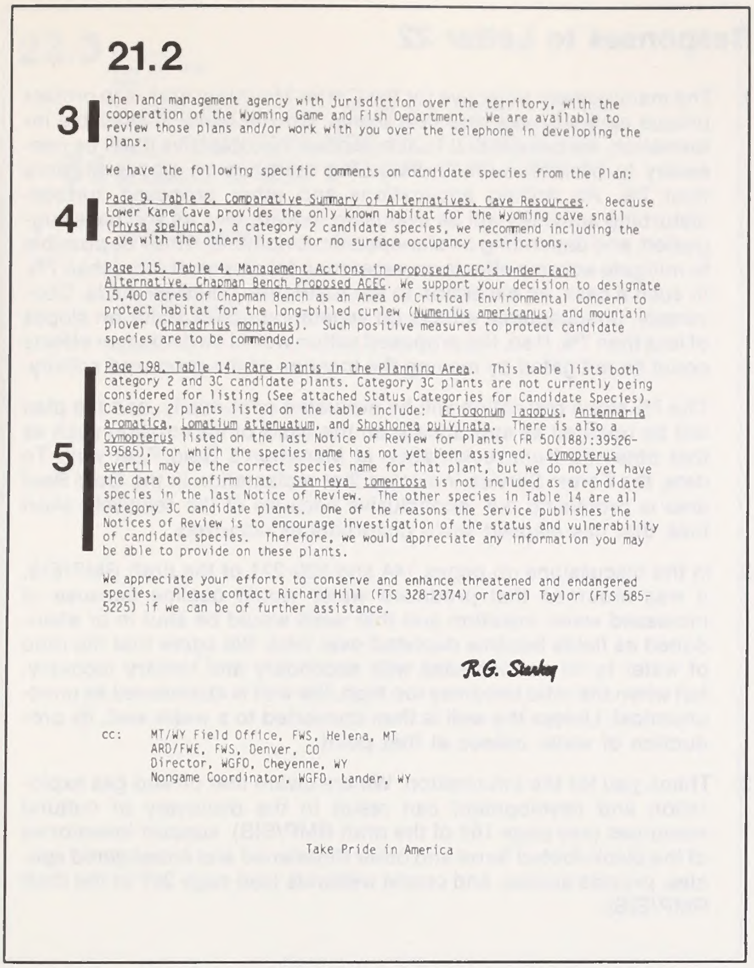
Responses to Letter 21

1. Thank you for commending two members of our Cody Resource Area staff. As we have indicated in this document, we intend to implement both the plan for management of peregrine falcon recovery habitat and the plan for management of wetlands habitat.
2. Thank you for pointing out the discrepancy. We have worded the section about black-footed ferret habitat in the proposed plan in this document to be consistent with the biological assessment. Also please see the response to comment 4 of letter 4.
3. Thank you for the information. We have modified the language of the proposed plan accordingly.
4. Please see the response to comment 2 of letter 11.
5. *Cymopterus evertii* is the taxonomic designation given to this newly described species of Cymopterus. This information was obtained from Hartman and Kirkpatrick (1986).

   Table 14 was intended to display not only listed or candidate plant species but also any species that may require other special management consideration (see the last paragraph on page 193 of the draft RMP/EIS). One of the species in this latter category is *Stanleya tomentosa*.



21.2

3 the land management agency with jurisdiction over the territory, with the cooperation of the Wyoming Game and Fish Department. We are available to review those plans and/or work with you over the telephone in developing the plans.

We have the following specific comments on candidate species from the Plan:

4 Page 9, Table 2, Comparative Summary of Alternatives, Cave Resources. Because Lower Kane Cave provides the only known habitat for the Wyoming cave snail (Physa spelunca), a category 2 candidate species, we recommend including the cave with the others listed for no surface occupancy restrictions.

Page 115, Table 4, Management Actions in Proposed ACEC's Under Each Alternative, Chapman Bench Proposed ACEC. We support your decision to designate 15,400 acres of Chapman Bench as an Area of Critical Environmental Concern to protect habitat for the long-billed curlew (Numenius americanus) and mountain plover (Charadrius montanus). Such positive measures to protect candidate species are to be commended.

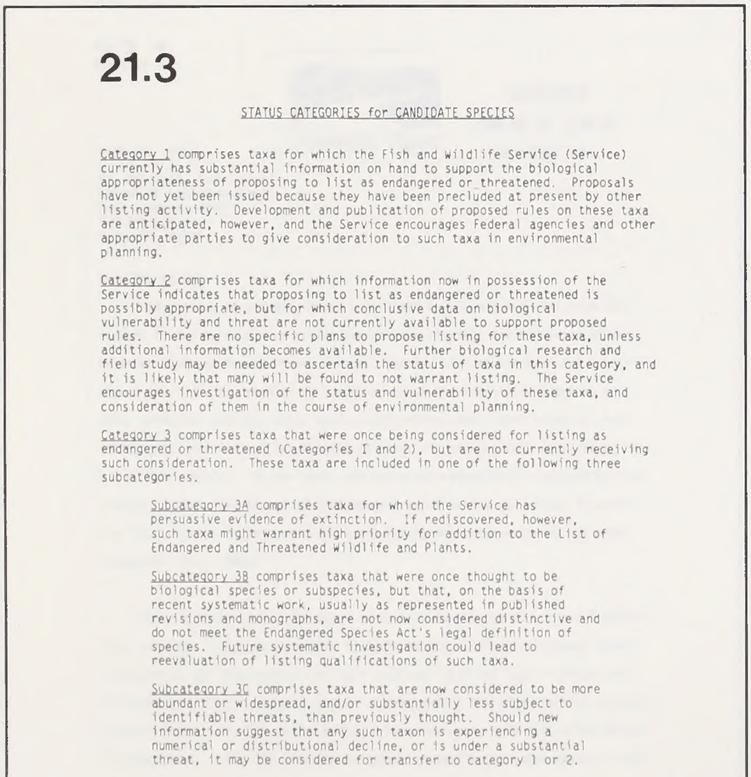
5 Page 198, Table 14, Rare Plants in the Planning Area. This table lists both category 2 and 3C candidate plants. Category 3C plants are not currently being considered for listing (See attached Status Categories for Candidate Species). Category 2 plants listed on the table include: Eriogonum lagopus, Antennaria aromatica, Lomatium attenuatum, and Shoshonea pulvinata. There is also a Cymopterus listed on the last Notice of Review for Plants (FR 50(188):39526-39585), for which the species name has not yet been assigned. Cymopterus evertii may be the correct species name for that plant, but we do not yet have the data to confirm that. Stanleya tomentosa is not included as a candidate species in the last Notice of Review. The other species in Table 14 are all category 3C candidate plants. One of the reasons the Service publishes the Notices of Review is to encourage investigation of the status and vulnerability of candidate species. Therefore, we would appreciate any information you may be able to provide on these plants.

We appreciate your efforts to conserve and enhance threatened and endangered species. Please contact Richard Hill (FTS 328-2374) or Carol Taylor (FTS 585-5225) if we can be of further assistance.

R.G. Starkey

cc: MT/WY Field Office, FWS, Helena, MT
ARD/FWE, FWS, Denver, CO
Director, WGFD, Cheyenne, WY
Nongame Coordinator, WGFD, Lander, WY

Take Pride in America



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STATUS CATEGORIES for CANDIDATE SPECIES

Category 1 comprises taxa for which the Fish and Wildlife Service (Service) currently has substantial information on hand to support the biological appropriateness of proposing to list as endangered or threatened. Proposals have not yet been issued because they have been precluded at present by other listing activity. Development and publication of proposed rules on these taxa are anticipated, however, and the Service encourages Federal agencies and other appropriate parties to give consideration to such taxa in environmental planning.

Category 2 comprises taxa for which information now in possession of the Service indicates that proposing to list as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threat are not currently available to support proposed rules. There are no specific plans to propose listing for these taxa, unless additional information becomes available. Further biological research and field study may be needed to ascertain the status of taxa in this category, and it is likely that many will be found to not warrant listing. The Service encourages investigation of the status and vulnerability of these taxa, and consideration of them in the course of environmental planning.

Category 3 comprises taxa that were once being considered for listing as endangered or threatened (Categories I and 2), but are not currently receiving such consideration. These taxa are included in one of the following three subcategories.

> Subcategory 3A comprises taxa for which the Service has persuasive evidence of extinction. If rediscovered, however, such taxa might warrant high priority for addition to the List of Endangered and Threatened Wildlife and Plants.
>
> Subcategory 3B comprises taxa that were once thought to be biological species or subspecies, but that, on the basis of recent systematic work, usually as represented in published revisions and monographs, are not now considered distinctive and do not meet the Endangered Species Act's legal definition of species. Future systematic investigation could lead to reevaluation of listing qualifications of such taxa.
>
> Subcategory 3C comprises taxa that are now considered to be more abundant or widespread, and/or substantially less subject to identifiable threats, than previously thought. Should new information suggest that any such taxon is experiencing a numerical or distributional decline, or is under a substantial threat, it may be considered for transfer to category 1 or 2.

This information is compiled from Endangered and Threatened Wildlife and Plants: Notices of Review, as published in the Federal Register (FR 50(181):37958 and FR 50(188):39526).

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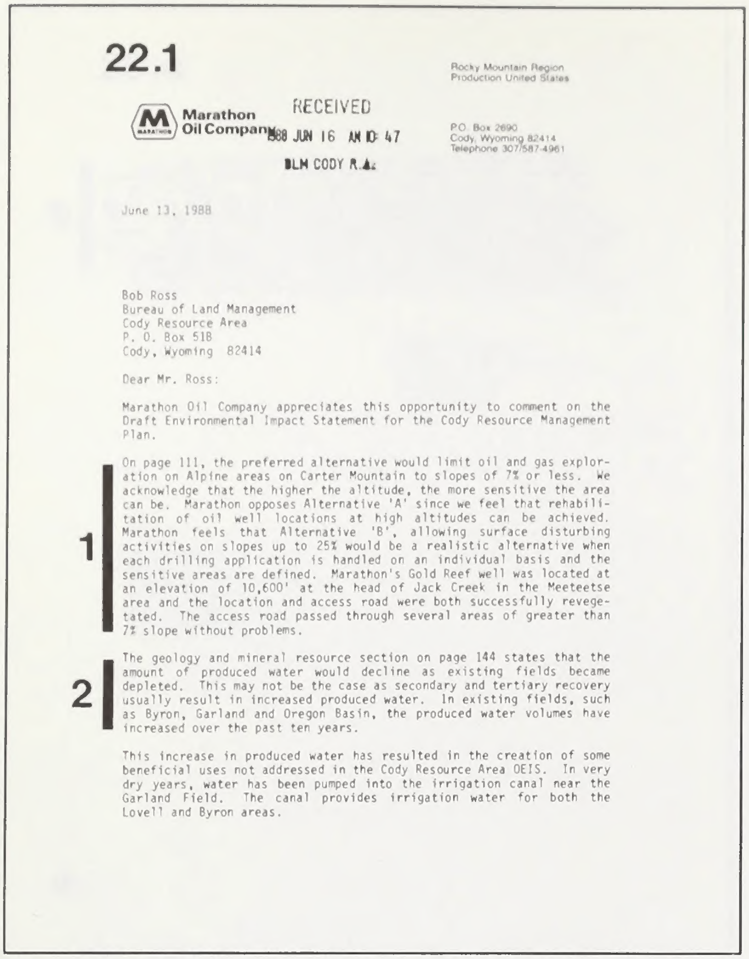

Marathon Oil Company

Rocky Mountain Region
Production United States

P.O. Box 2690
Cody, Wyoming 82414
Telephone 307/587-4961

RECEIVED
88 JUN 16 AM 10 47
BLM CODY R.A.

June 13, 1988

Bob Ross
Bureau of Land Management
Cody Resource Area
P. O. Box 518
Cody, Wyoming 82414

Dear Mr. Ross:

Marathon Oil Company appreciates this opportunity to comment on the Draft Environmental Impact Statement for the Cody Resource Management Plan.

1 On page 111, the preferred alternative would limit oil and gas exploration on Alpine areas on Carter Mountain to slopes of 7% or less. We acknowledge that the higher the altitude, the more sensitive the area can be. Marathon opposes Alternative 'A' since we feel that rehabilitation of oil well locations at high altitudes can be achieved. Marathon feels that Alternative 'B', allowing surface disturbing activities on slopes up to 25% would be a realistic alternative when each drilling application is handled on an individual basis and the sensitive areas are defined. Marathon's Gold Reef well was located at an elevation of 10,600' at the head of Jack Creek in the Meeteetse area and the location and access road were both successfully revegetated. The access road passed through several areas of greater than 7% slope without problems.

2 The geology and mineral resource section on page 144 states that the amount of produced water would decline as existing fields became depleted. This may not be the case as secondary and tertiary recovery usually result in increased produced water. In existing fields, such as Byron, Garland and Oregon Basin, the produced water volumes have increased over the past ten years.

This increase in produced water has resulted in the creation of some beneficial uses not addressed in the Cody Resource Area DEIS. In very dry years, water has been pumped into the irrigation canal near the Garland Field. The canal provides irrigation water for both the Lovell and Byron areas.

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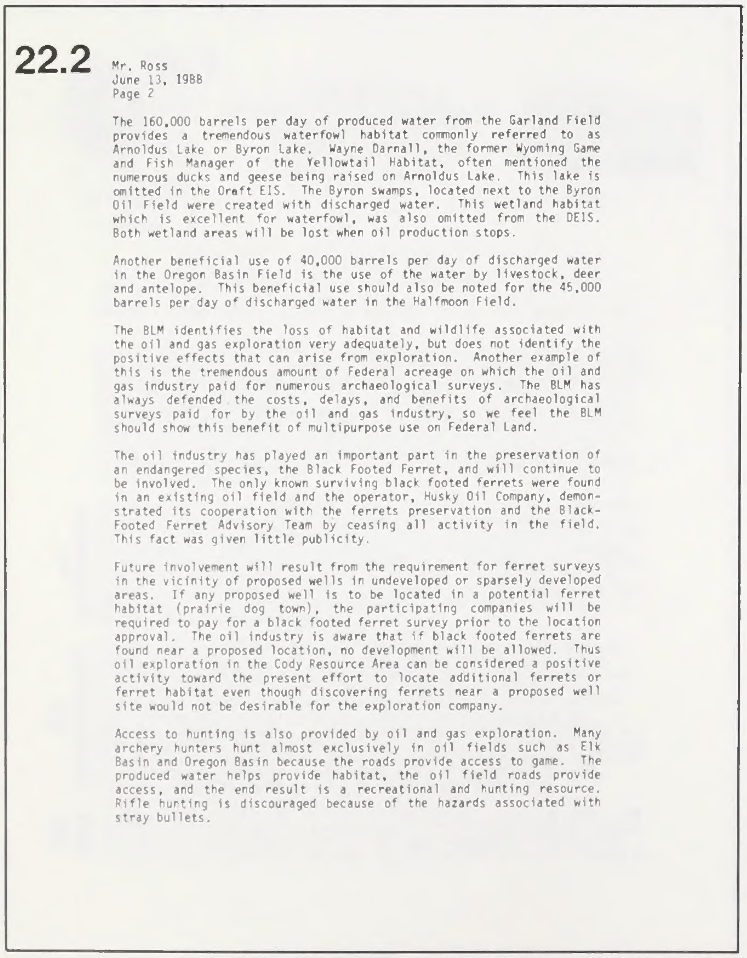


Mr. Ross
June 13, 1988
Page 2

The 160,000 barrels per day of produced water from the Garland Field provides a tremendous waterfowl habitat commonly referred to as Arnoldus Lake or Byron Lake. Wayne Darnall, the former Wyoming Game and Fish Manager of the Yellowtail Habitat, often mentioned the numerous ducks and geese being raised on Arnoldus Lake. This lake is omitted in the Draft EIS. The Byron swamps, located next to the Byron Oil Field were created with discharged water. This wetland habitat which is excellent for waterfowl, was also omitted from the DEIS. Both wetland areas will be lost when oil production stops.

Another beneficial use of 40,000 barrels per day of discharged water in the Oregon Basin Field is the use of the water by livestock, deer and antelope. This beneficial use should also be noted for the 45,000 barrels per day of discharged water in the Halfmoon Field.

The BLM identifies the loss of habitat and wildlife associated with the oil and gas exploration very adequately, but does not identify the positive effects that can arise from exploration. Another example of this is the tremendous amount of Federal acreage on which the oil and gas industry paid for numerous archaeological surveys. The BLM has always defended the costs, delays, and benefits of archaeological surveys paid for by the oil and gas industry, so we feel the BLM should show this benefit of multipurpose use on Federal Land.

The oil industry has played an important part in the preservation of an endangered species, the Black Footed Ferret, and will continue to be involved. The only known surviving black footed ferrets were found in an existing oil field and the operator, Husky Oil Company, demonstrated its cooperation with the ferrets preservation and the Black-Footed Ferret Advisory Team by ceasing all activity in the field. This fact was given little publicity.

Future involvement will result from the requirement for ferret surveys in the vicinity of proposed wells in undeveloped or sparsely developed areas. If any proposed well is to be located in a potential ferret habitat (prairie dog town), the participating companies will be required to pay for a black footed ferret survey prior to the location approval. The oil industry is aware that if black footed ferrets are found near a proposed location, no development will be allowed. Thus oil exploration in the Cody Resource Area can be considered a positive activity toward the present effort to locate additional ferrets or ferret habitat even though discovering ferrets near a proposed well site would not be desirable for the exploration company.

Access to hunting is also provided by oil and gas exploration. Many archery hunters hunt almost exclusively in oil fields such as Elk Basin and Oregon Basin because the roads provide access to game. The produced water helps provide habitat, the oil field roads provide access, and the end result is a recreational and hunting resource. Rifle hunting is discouraged because of the hazards associated with stray bullets.

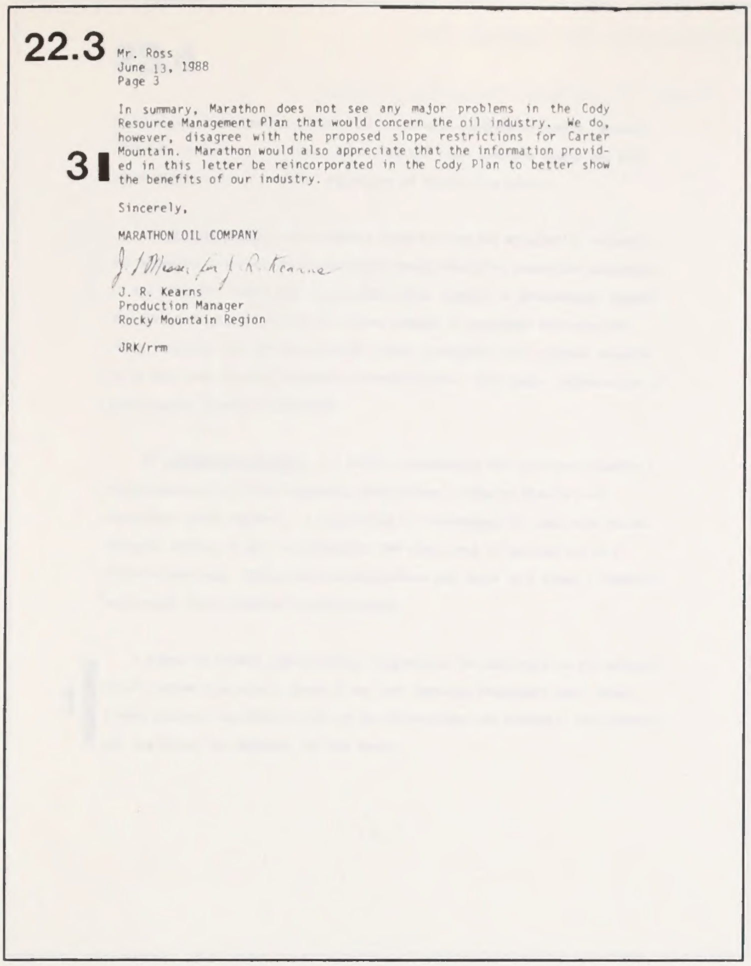
Responses to Letter 22

1. The management objective for the Carter Mountain area is to protect unique alpine tundra and rare plants. On the basis of available information, we believe that to accomplish this objective it will be necessary to prohibit surface-disturbing activities on slopes of more than 7%. All drilling applications and other proposed surface-disturbing activities will be evaluated individually, as you have suggested, and depending on site-specific conditions, it may be possible to mitigate adverse effects on vegetation for slopes of more than 7%. In such a case, an exception to the restriction could be made. Conversely, unacceptable effects on vegetation could occur on slopes of less than 7%. If so, the proposed action would be denied, or effects could be mitigated by moving the location of the proposed activity.

   The 7% slope restriction will be evaluated continually, and the plan will be updated as appropriate on the basis of information such as that obtained from reclamation at Marathon's Gold Reef well. To date, the Forest Service indicates that reclamation in the Gold Reef area is promising but inconclusive because of the relatively short time that has elapsed since disturbances occurred.

2. In the discussions on pages 144 and 220-221 of the draft RMP/EIS, it was assumed that produced water would decline because of increased water injection and that wells would be shut in or abandoned as fields became depleted over time. We agree that the ratio of water to oil can increase with secondary and tertiary recovery, but when the ratio becomes too high, the well is abandoned as uneconomical. Unless the well is then converted to a water well, its production of water ceases at that point.

3. Thank you for the information. We are aware that oil and gas exploration and development can result in the discovery of cultural resources (see page 168 of the draft RMP/EIS), support inventories of the black-footed ferret and other threatened and endangered species, provide access, and create wetlands (see page 207 of the draft RMP/EIS).



22.3

Mr. Ross
June 13, 1988
Page 3

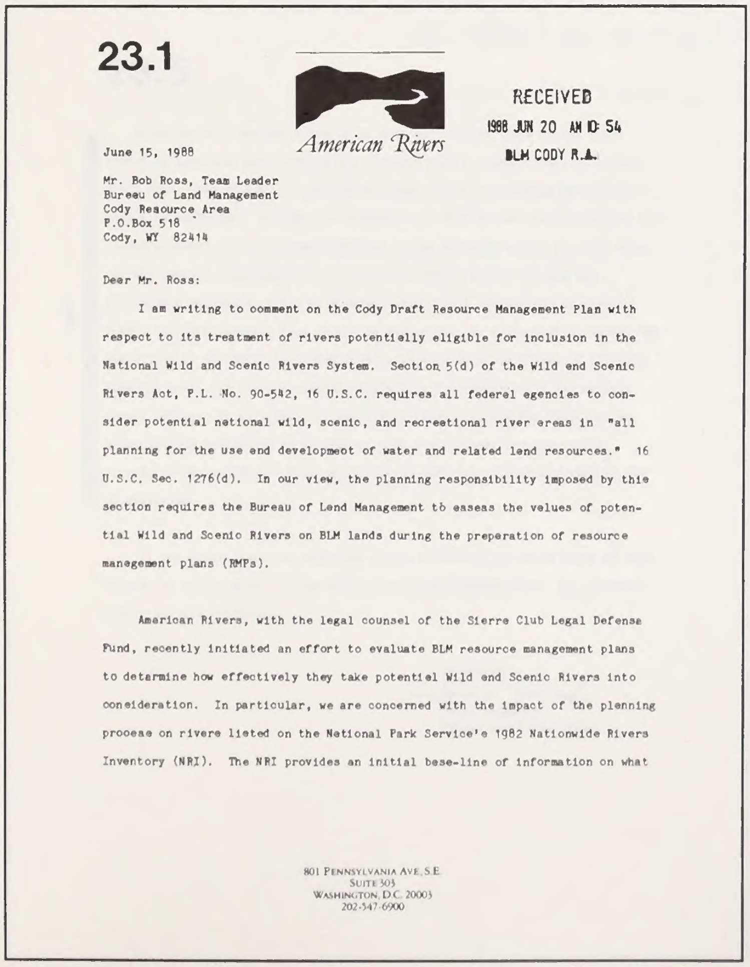
3 In summary, Marathon does not see any major problems in the Cody Resource Management Plan that would concern the oil industry. We do, however, disagree with the proposed slope restrictions for Carter Mountain. Marathon would also appreciate that the information provided in this letter be reincorporated in the Cody Plan to better show the benefits of our industry.

Sincerely,

MARATHON OIL COMPANY

J. J. Moss for J. R. Kearns
J. R. Kearns
Production Manager
Rocky Mountain Region

JRK/rrm



23.1

American Rivers

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1988 JUN 20 AM 10: 54
BLM CODY R.A.

June 15, 1988

Mr. Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O.Box 518
Cody, WY 82414

Dear Mr. Ross:

I am writing to comment on the Cody Draft Resource Management Plan with respect to its treatment of rivers potentially eligible for inclusion in the National Wild and Scenic Rivers System. Section 5(d) of the Wild and Scenic Rivers Act, P.L. No. 90-542, 16 U.S.C. requires all federal agencies to consider potential national wild, scenic, and recreational river areas in "all planning for the use and development of water and related land resources." 16 U.S.C. Sec. 1276(d). In our view, the planning responsibility imposed by this section requires the Bureau of Land Management to assess the values of potential Wild and Scenic Rivers on BLM lands during the preparation of resource management plans (RMPs).

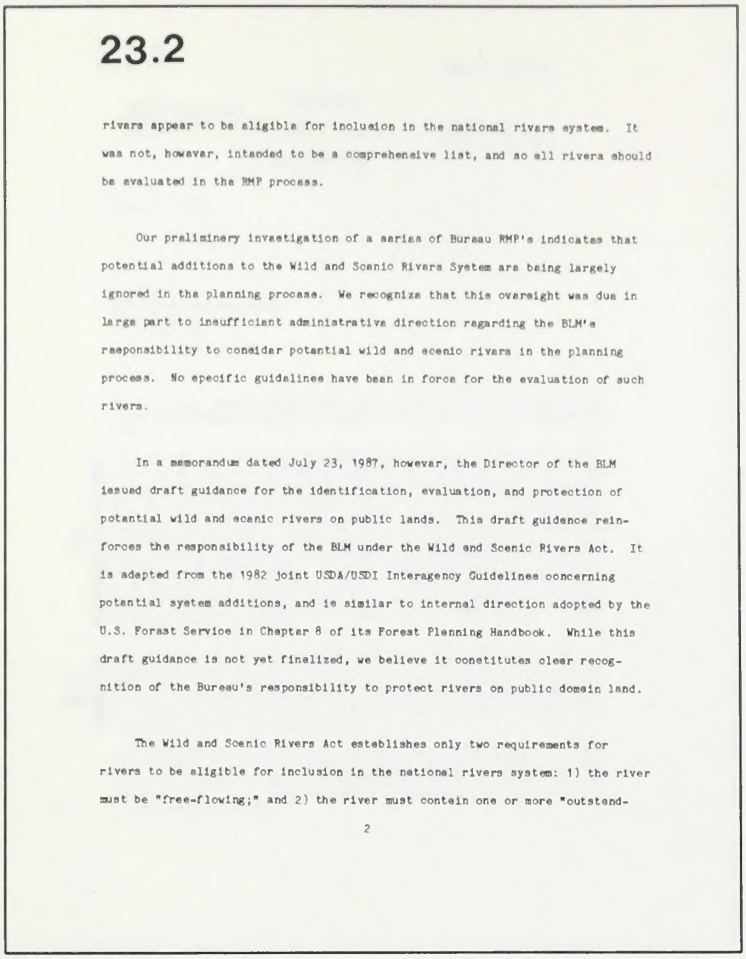
American Rivers, with the legal counsel of the Sierra Club Legal Defense Fund, recently initiated an effort to evaluate BLM resource management plans to determine how effectively they take potential Wild and Scenic Rivers into consideration. In particular, we are concerned with the impact of the planning process on rivers listed on the National Park Service's 1982 Nationwide Rivers Inventory (NRI). The NRI provides an initial base-line of information on what

801 Pennsylvania Ave. S.E.
Suite 303
Washington, D.C. 20003
202-547-6900

Response to Letter 23

1. Please see general response 3, appendix J, and the new map 1 in this document for discussion and recommendations relative to the National Wild and Scenic Rivers System.

23.2



rivers appear to be eligible for inclusion in the national rivers system. It was not, however, intended to be a comprehensive list, and so all rivers should be evaluated in the RMP process.

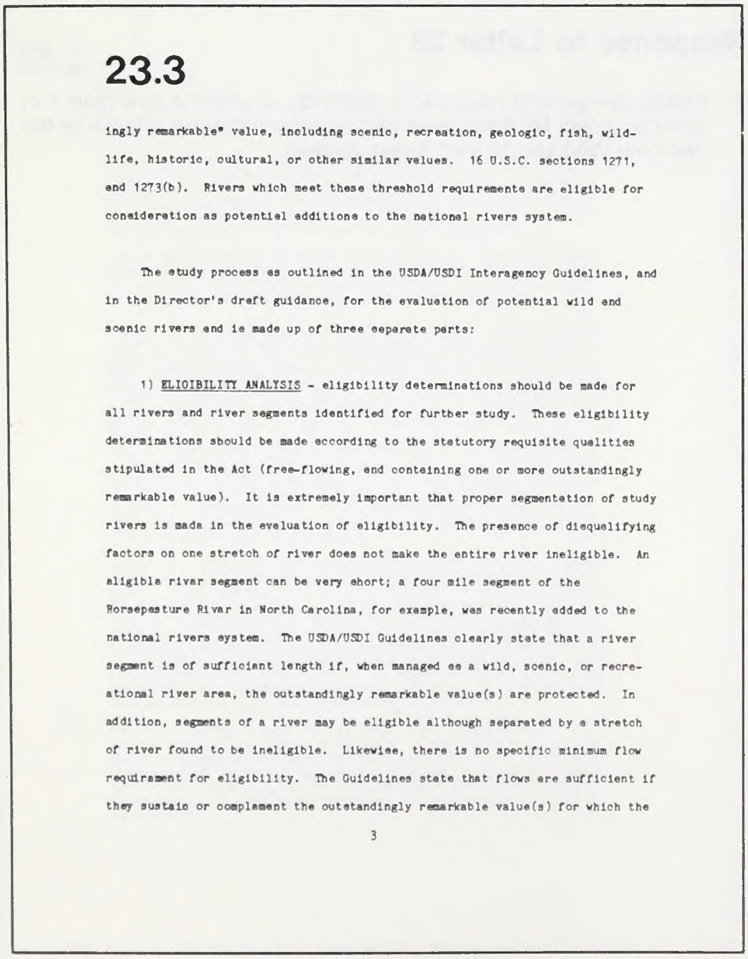
Our preliminary investigation of a series of Bureau RMP's indicates that potential additions to the Wild and Scenic Rivers System are being largely ignored in the planning process. We recognize that this oversight was due in large part to insufficient administrative direction regarding the BLM's responsibility to consider potential wild and scenic rivers in the planning process. No specific guidelines have been in force for the evaluation of such rivers.

In a memorandum dated July 23, 1987, however, the Director of the BLM issued draft guidance for the identification, evaluation, and protection of potential wild and scenic rivers on public lands. This draft guidance reinforces the responsibility of the BLM under the Wild and Scenic Rivers Act. It is adapted from the 1982 joint USDA/USDI Interagency Guidelines concerning potential system additions, and is similar to internal direction adopted by the U.S. Forest Service in Chapter 8 of its Forest Planning Handbook. While this draft guidance is not yet finalized, we believe it constitutes clear recognition of the Bureau's responsibility to protect rivers on public domain land.

The Wild and Scenic Rivers Act establishes only two requirements for rivers to be eligible for inclusion in the national rivers system: 1) the river must be "free-flowing;" and 2) the river must contain one or more "outstand-

2

23.3



ingly remarkable" value, including scenic, recreation, geologic, fish, wildlife, historic, cultural, or other similar values. 16 U.S.C. sections 1271, and 1273(b). Rivers which meet these threshold requirements are eligible for consideration as potential additions to the national rivers system.

The study process as outlined in the USDA/USDI Interagency Guidelines, and in the Director's draft guidance, for the evaluation of potential wild and scenic rivers and is made up of three separate parts:

1) ELIGIBILITY ANALYSIS - eligibility determinations should be made for all rivers and river segments identified for further study. These eligibility determinations should be made according to the statutory requisite qualities stipulated in the Act (free-flowing, and containing one or more outstandingly remarkable value). It is extremely important that proper segmentation of study rivers is made in the evaluation of eligibility. The presence of disqualifying factors on one stretch of river does not make the entire river ineligible. An eligible river segment can be very short; a four mile segment of the Horsepasture River in North Carolina, for example, was recently added to the national rivers system. The USDA/USDI Guidelines clearly state that a river segment is of sufficient length if, when managed as a wild, scenic, or recreational river area, the outstandingly remarkable value(s) are protected. In addition, segments of a river may be eligible although separated by a stretch of river found to be ineligible. Likewise, there is no specific minimum flow requirement for eligibility. The Guidelines state that flows are sufficient if they sustain or complement the outstandingly remarkable value(s) for which the

3

23.4

river would be designated. Thus, "outstandingly remarkable" scenic, botanic, wildlife, wilderness, geologic, historic, and other resource values may all exist within a river corridor regardless of stream flow levels.

2) CLASSIFICATION - all segments found to meet the eligibility criteria for potential inclusion in the national system should be classified according to the USDA/USDI Guidelines as potential Wild, Scenic, or Recreational Rivers. The potential classification of a river segment is important because, once found eligible, the BLM must provide interim protection for eligible segments up to the level of their potential classification. Here again, segmentation of the eligible rivers is pertinent.

3) SUITABILITY ANALYSIS - a river's suitability for inclusion involves a recommendation by the BLM regarding the proposed future of eligible and classified river segments. A segment may be recommended for inclusion in the national system, or may be recommended for other uses if appropriate to a river's resources. Suitability determinations are based on a river's resource values and other practical considerations.

1 A number of rivers with potential eligibility for inclusion in the national rivers system flow across lands of the Cody Resource Management Area, these rivers include: the Clark's Fork of the Yellowstone; the Greybull; the Shoshone and its forks; the Bighorn; and Dry Creek.

23.5

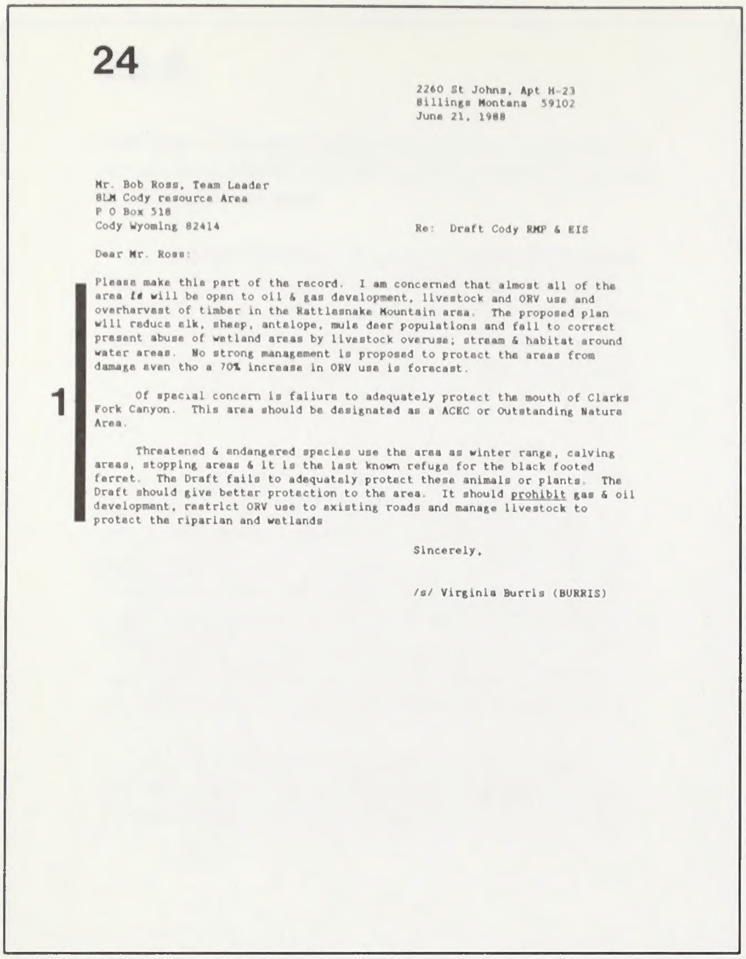
1 Unfortunately, the Draft Cody plan does not address these or any other rivers as potential additions to the national rivers system. There is little doubt that these rivers, or portions of them, are of outstanding quality and should be evaluated. We believe, therefore, in view of the draft direction for rivers planning and protection contained in the Director's July 23, 1987 memo, and the general requirements of the Wild and Scenic Rivers Act and the interagency guidelines that, at minimum, eligibility evaluations of rivers within the Cody planning area should be conducted. We respectfully request the evaluation of the above mentioned rivers, as well as other rivers in the Cody planning area, for their potential eligibility for inclusion in the national rivers system. We also ask that any rivers found eligible for inclusion be given interim protection in accordance with their classification - wild, scenic, or recreational - until such time as detailed suitability studies can be completed.

If you should have any questions please contact me or Kevin Coyle of this office, or Robert Dreher of the Sierra Club Legal Defense Fund. Mr. Dreher's number is (202) 667-4500.

Sincerely,

James Fosburgh

James Fosburgh
Public Lands Specialist



24

2260 St Johns, Apt H-23
Billings Montana 59102
June 21, 1988

Mr. Bob Ross, Team Leader
BLM Cody resource Area
P O Box 518
Cody Wyoming 82414

Re: Draft Cody RMP & EIS

Dear Mr. Ross:

1 Please make this part of the record. I am concerned that almost all of the area ~~is~~ will be open to oil & gas development, livestock and ORV use and overharvest of timber in the Rattlesnake Mountain area. The proposed plan will reduce elk, sheep, antelope, mule deer populations and fail to correct present abuse of wetland areas by livestock overuse; stream & habitat around water areas. No strong management is proposed to protect the areas from damage even tho a 70% increase in ORV use is forecast.

Of special concern is failure to adequately protect the mouth of Clarks Fork Canyon. This area should be designated as a ACEC or Outstanding Nature Area.

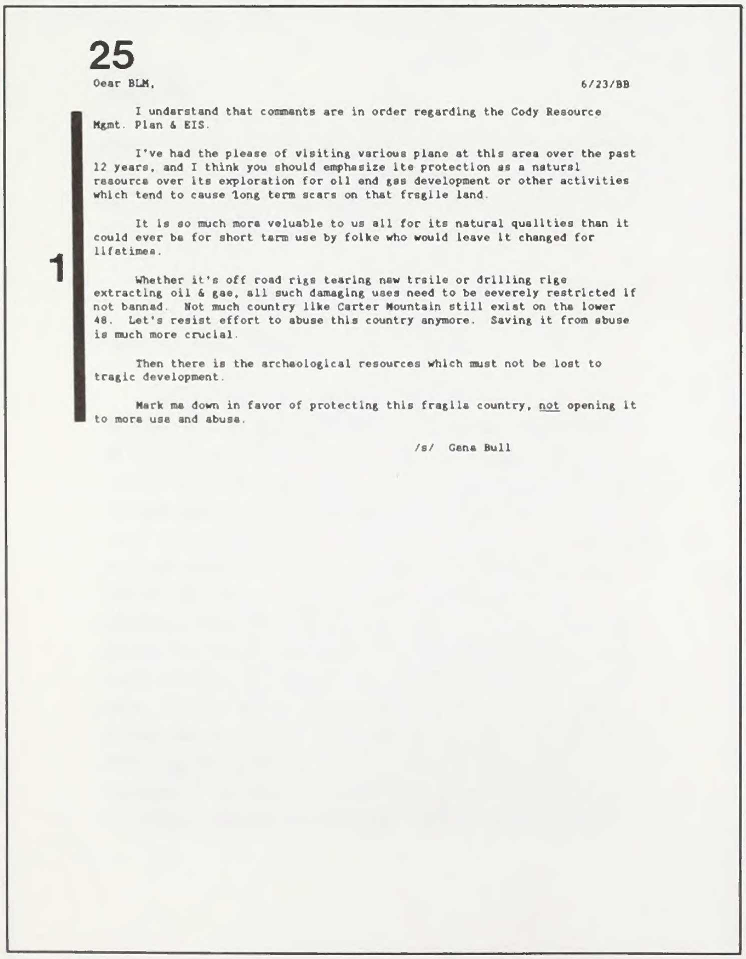
Threatened & endangered species use the area as winter range, calving areas, stopping areas & it is the last known refuge for the black footed ferret. The Draft fails to adequately protect these animals or plants. The Draft should give better protection to the area. It should prohibit gas & oil development, restrict ORV use to existing roads and manage livestock to protect the riparian and wetlands

Sincerely,

/s/ Virginia Burris (BURRIS)

Response to Letter 24

1. Please see general responses 3, 4, and 5.



25

Dear BLM, 6/23/88

1 I understand that comments are in order regarding the Cody Resource Mgmt. Plan & EIS.

I've had the please of visiting various plans at this area over the past 12 years, and I think you should emphasize its protection as a natural resource over its exploration for oil and gas development or other activities which tend to cause long term scars on that fragile land.

It is so much more valuable to us all for its natural qualities than it could ever be for short term use by folks who would leave it changed for lifetimes.

Whether it's off road rigs tearing new trails or drilling rigs extracting oil & gas, all such damaging uses need to be severely restricted if not banned. Not much country like Carter Mountain still exist on the lower 48. Let's resist effort to abuse this country anymore. Saving it from abuse is much more crucial.

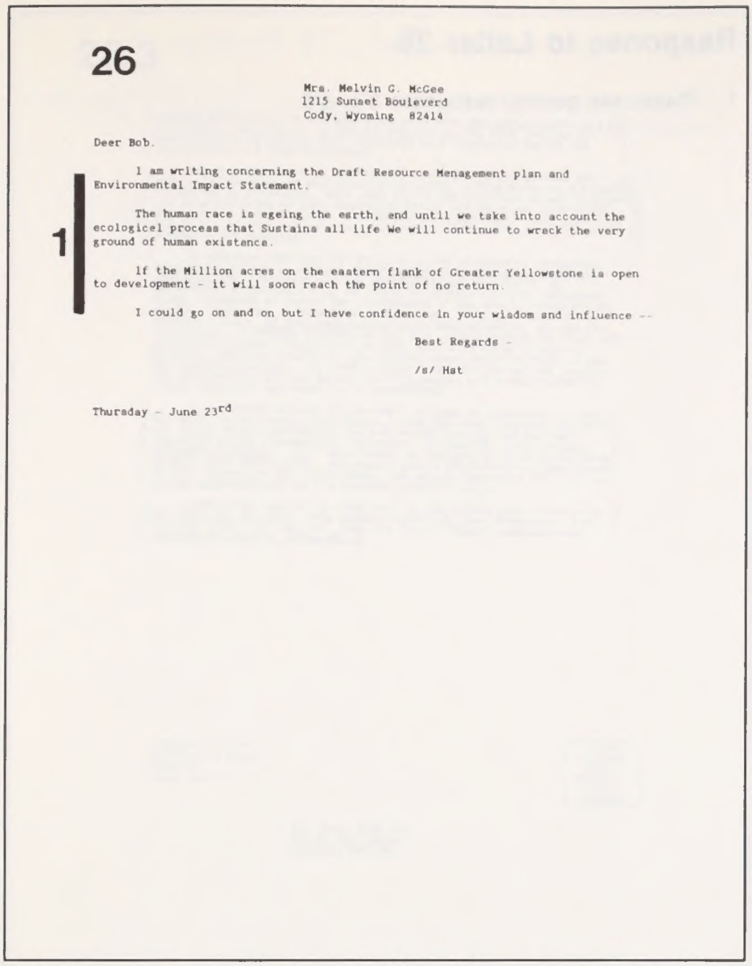
Then there is the archaeological resources which must not be lost to tragic development.

Mark me down in favor of protecting this fragile country, not opening it to more use and abuse.

/s/ Gena Bull

Response to Letter 25

1. Please see general response 5.



26

Mrs. Melvin G. McGee
1215 Sunset Boulevard
Cody, Wyoming 82414

Dear Bob.

1 I am writing concerning the Draft Resource Management plan and Environmental Impact Statement.

The human race is ageing the earth, and until we take into account the ecological process that Sustains all life We will continue to wreck the very ground of human existance.

If the Million acres on the eastern flank of Greater Yellowstone is open to development - it will soon reach the point of no return.

I could go on and on but I have confidence in your wisdom and influence --

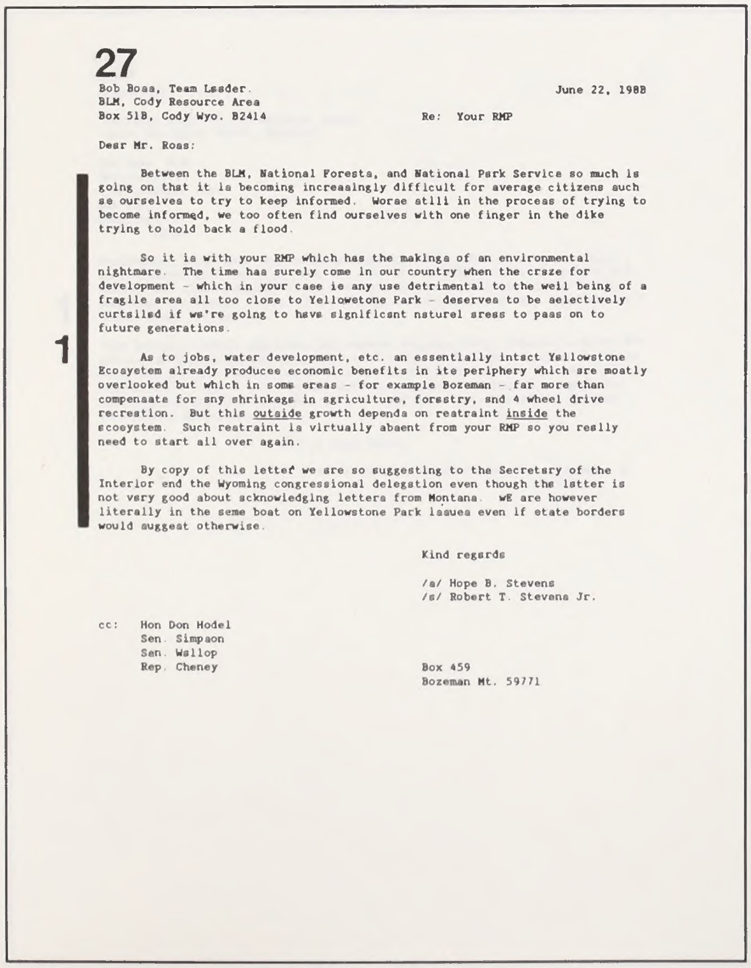
Best Regards -

/s/ Hst

Thursday - June 23rd

Response to Letter 26

1. Thank you for your comment.



27

Bob Boss, Team Leader.
BLM, Cody Resource Area
Box 518, Cody Wyo. 82414

June 22, 1988

Re: Your RMP

Dear Mr. Ross:

1 Between the BLM, National Forests, and National Park Service so much is going on that it is becoming increasingly difficult for average citizens such as ourselves to try to keep informed. Worse still in the process of trying to become informed, we too often find ourselves with one finger in the dike trying to hold back a flood.

So it is with your RMP which has the makings of an environmental nightmare. The time has surely come in our country when the craze for development - which in your case is any use detrimental to the well being of a fragile area all too close to Yellowstone Park - deserves to be selectively curtailed if we're going to have significant natural areas to pass on to future generations.

As to jobs, water development, etc. an essentially intact Yellowstone Ecosystem already produces economic benefits in its periphery which are mostly overlooked but which in some areas - for example Bozeman - far more than compensate for any shrinkage in agriculture, forestry, and 4 wheel drive recreation. But this outside growth depends on restraint inside the ecosystem. Such restraint is virtually absent from your RMP so you really need to start all over again.

By copy of this letter we are so suggesting to the Secretary of the Interior and the Wyoming congressional delegation even though the latter is not very good about acknowledging letters from Montana. wE are however literally in the same boat on Yellowstone Park issues even if state borders would suggest otherwise.

Kind regards

/s/ Hope B. Stevens
/s/ Robert T. Stevens Jr.

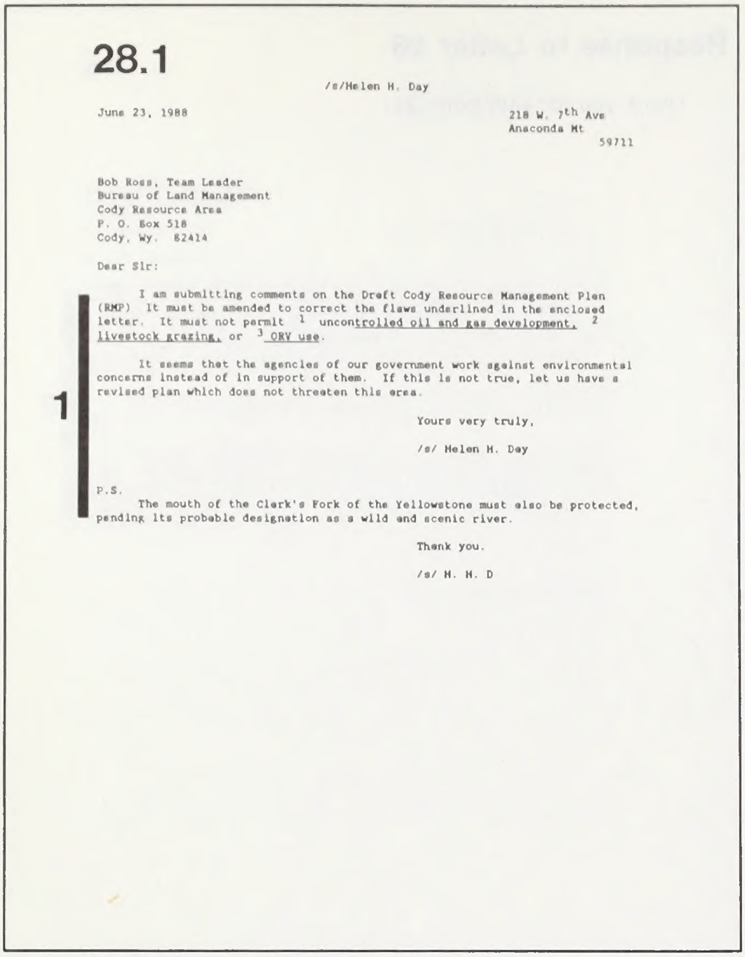
cc: Hon Don Hodel
Sen. Simpson
Sen. Wallop
Rep. Cheney

Box 459
Bozeman Mt. 59771

Response to Letter 27

1. Please see general response 5.

28.1



/s/Helen H. Day

June 23, 1988

218 W. 7th Ave
Anaconda Mt
59711

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P. O. Box 518
Cody, Wy. 82414

Dear Sir:

1 I am submitting comments on the Draft Cody Resource Management Plan (RMP) It must be amended to correct the flaws underlined in the enclosed letter. It must not permit [1] uncontrolled oil and gas development, [2] livestock grazing, or [3] ORV use.

It seems that the agencies of our government work against environmental concerns instead of in support of them. If this is not true, let us have a revised plan which does not threaten this area.

Yours very truly,

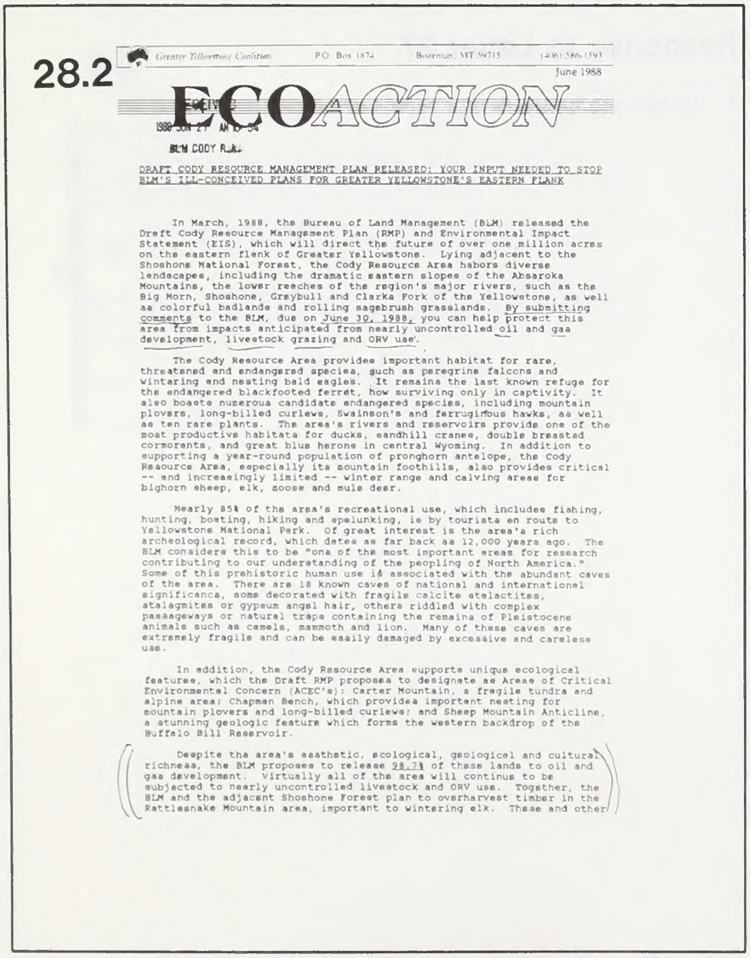
/s/ Helen H. Day

P.S.
The mouth of the Clark's Fork of the Yellowstone must also be protected, pending its probable designation as a wild and scenic river.

Thank you.

/s/ H. H. D

28.2



Greater Yellowstone Coalition P.O. Box 1874 Bozeman, MT 59715 (406) 586-1593

June 1988

ECOACTION

RECEIVED
1988 JUN 27 AM 10 34
BLM CODY R.A.

DRAFT CODY RESOURCE MANAGEMENT PLAN RELEASED: YOUR INPUT NEEDED TO STOP BLM'S ILL-CONCEIVED PLANS FOR GREATER YELLOWSTONE'S EASTERN FLANK

In March, 1988, the Bureau of Land Management (BLM) released the Draft Cody Resource Management Plan (RMP) and Environmental Impact Statement (EIS), which will direct the future of over one million acres on the eastern flank of Greater Yellowstone. Lying adjacent to the Shoshone National Forest, the Cody Resource Area habors diverse landscapes, including the dramatic eastern slopes of the Absaroka Mountains, the lower reaches of the region's major rivers, such as the Big Horn, Shoshone, Greybull and Clarks Fork of the Yellowstone, as well as colorful badlands and rolling sagebrush grasslands. By submitting comments to the BLM, due on June 30, 1988, you can help protect this area from impacts anticipated from nearly uncontrolled oil and gas development, livestock grazing and ORV use.

The Cody Resource Area provides important habitat for rare, threatened and endangered species, such as peregrine falcons and wintering and nesting bald eagles. It remains the last known refuge for the endangered blackfooted ferret, now surviving only in captivity. It also boasts numerous candidate endangered species, including mountain plovers, long-billed curlews, Swainson's and ferruginous hawks, as well as ten rare plants. The area's rivers and reservoirs provide one of the most productive habitats for ducks, sandhill cranes, double breasted cormorants, and great blue herons in central Wyoming. In addition to supporting a year-round population of pronghorn antelope, the Cody Resource Area, especially its mountain foothills, also provides critical -- and increasingly limited -- winter range and calving areas for bighorn sheep, elk, moose and mule deer.

Nearly 85% of the area's recreational use, which includes fishing, hunting, boating, hiking and spelunking, is by tourists en route to Yellowstone National Park. Of great interest is the area's rich archeological record, which dates as far back as 12,000 years ago. The BLM considers this to be "one of the most important areas for research contributing to our understanding of the peopling of North America." Some of this prehistoric human use is associated with the abundant caves of the area. There are 18 known caves of national and international significance, some decorated with fragile calcite stalactites, stalagmites or gypsum angel hair, others riddled with complex passageways or natural traps containing the remains of Pleistocene animals such as camels, mammoth and lion. Many of these caves are extremely fragile and can be easily damaged by excessive and careless use.

In addition, the Cody Resource Area supports unique ecological features, which the Draft RMP proposes to designate as Areas of Critical Environmental Concern (ACEC's): Carter Mountain, a fragile tundra and alpine area; Chapman Bench, which provides important nesting for mountain plovers and long-billed curlews; and Sheep Mountain Anticline, a stunning geologic feature which forms the western backdrop of the Buffalo Bill Reservoir.

Despite the area's aesthetic, ecological, geological and cultural richness, the BLM proposes to release 98.7% of these lands to oil and gas development. Virtually all of the area will continue to be subjected to nearly uncontrolled livestock and ORV use. Together, the BLM and the adjacent Shoshone Forest plan to overharvest timber in the Rattlesnake Mountain area, important to wintering elk. These and other

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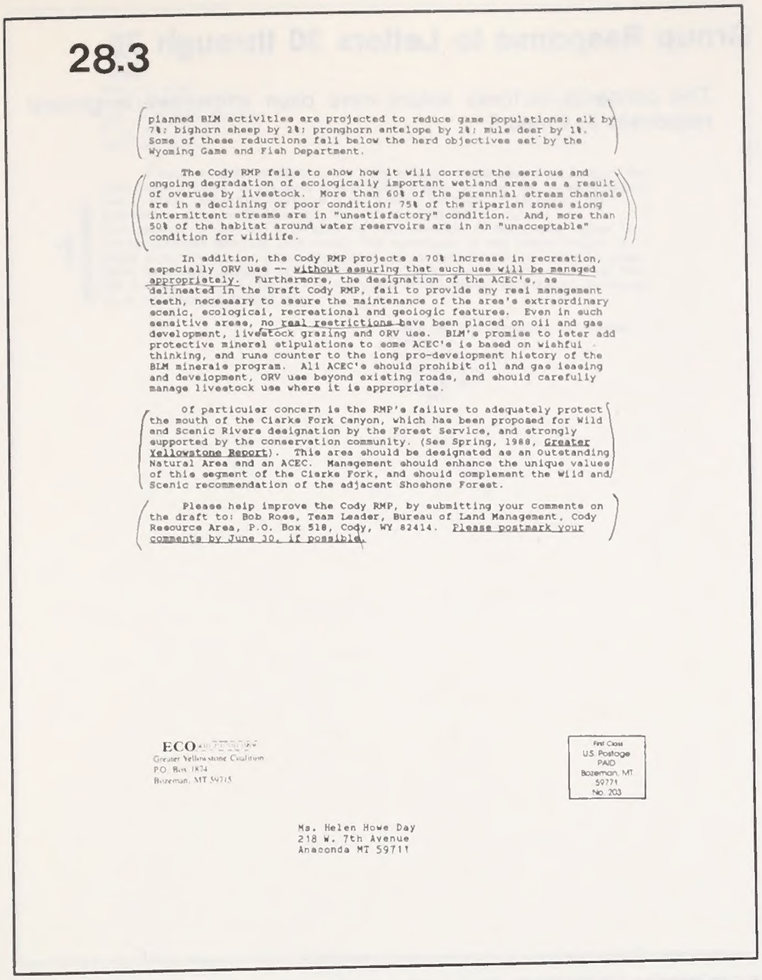
Response to Letter 28

1. Please see general responses 3 and 5.

28.3



planned BLM activities are projected to reduce game populations: elk by 7%; bighorn sheep by 2%; pronghorn antelope by 2%; mule deer by 1%. Some of these reductions fall below the herd objectives set by the Wyoming Game and Fish Department.

The Cody RMP fails to show how it will correct the serious and ongoing degradation of ecologically important wetland areas as a result of overuse by livestock. More than 60% of the perennial stream channels are in a declining or poor condition; 75% of the riparian zones along intermittent streams are in "unsatisfactory" condition. And, more than 50% of the habitat around water reservoirs are in an "unacceptable" condition for wildlife.

In addition, the Cody RMP projects a 70% increase in recreation, especially ORV use -- without assuring that such use will be managed appropriately. Furthermore, the designation of the ACEC's, as delineated in the Draft Cody RMP, fail to provide any real management teeth, necessary to assure the maintenance of the area's extraordinary scenic, ecological, recreational and geologic features. Even in such sensitive areas, no real restrictions have been placed on oil and gas development, livestock grazing and ORV use. BLM's promise to later add protective mineral stipulations to some ACEC's is based on wishful thinking, and runs counter to the long pro-development history of the BLM minerals program. All ACEC's should prohibit oil and gas leasing and development, ORV use beyond existing roads, and should carefully manage livestock use where it is appropriate.

Of particular concern is the RMP's failure to adequately protect the mouth of the Clarks Fork Canyon, which has been proposed for Wild and Scenic Rivers designation by the Forest Service, and strongly supported by the conservation community. (See Spring, 1988, Greater Yellowstone Report). This area should be designated as an Outstanding Natural Area and an ACEC. Management should enhance the unique values of this segment of the Clarks Fork, and should complement the Wild and Scenic recommendation of the adjacent Shoshone Forest.

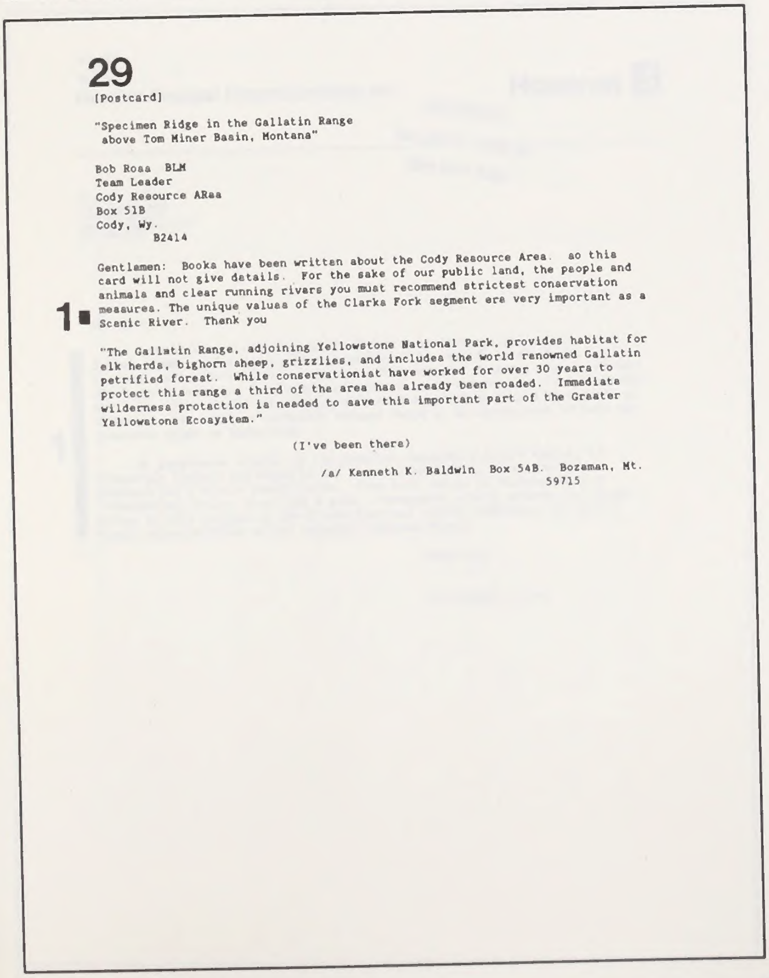
Please help improve the Cody RMP, by submitting your comments on the draft to: Bob Ross, Team Leader, Bureau of Land Management, Cody Resource Area, P.O. Box 518, Cody, WY 82414. Please postmark your comments by June 30, if possible.

ECO
Greater Yellowstone Coalition
P.O. Box 1874
Bozeman, MT 59715

First Class
U.S. Postage
PAID
Bozeman, MT
59771
No. 203

Ms. Helen Howe Day
218 W. 7th Avenue
Anaconda MT 59711

29



[Postcard]

"Specimen Ridge in the Gallatin Range
above Tom Miner Basin, Montana"

Bob Ross BLM
Team Leader
Cody Resource ARea
Box 51B
Cody, Wy.
B2414

Gentlemen: Books have been written about the Cody Resource Area. so this card will not give details. For the sake of our public land, the people and animals and clear running rivers you must recommend strictest conservation
1 ■ measures. The unique values of the Clarks Fork segment are very important as a Scenic River. Thank you

"The Gallatin Range, adjoining Yellowstone National Park, provides habitat for elk herds, bighorn sheep, grizzlies, and includes the world renowned Gallatin petrified forest. While conservationist have worked for over 30 years to protect this range a third of the area has already been roaded. Immediate wilderness protection is needed to save this important part of the Greater Yellowstone Ecosystem."

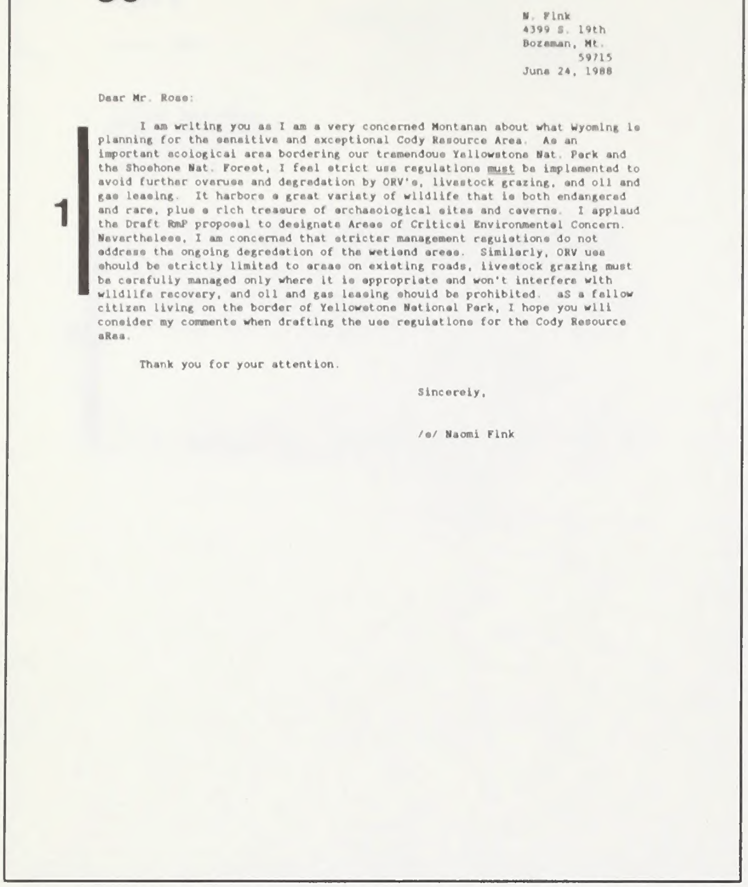
(I've been there)

/s/ Kenneth K. Baldwin Box 54B. Bozeman, Mt.
59715

Response to Letter 29

1. Please see general response 3.

30



N. Fink
4399 S. 19th
Bozeman, Mt.
59715
June 24, 1988

Dear Mr. Rose:

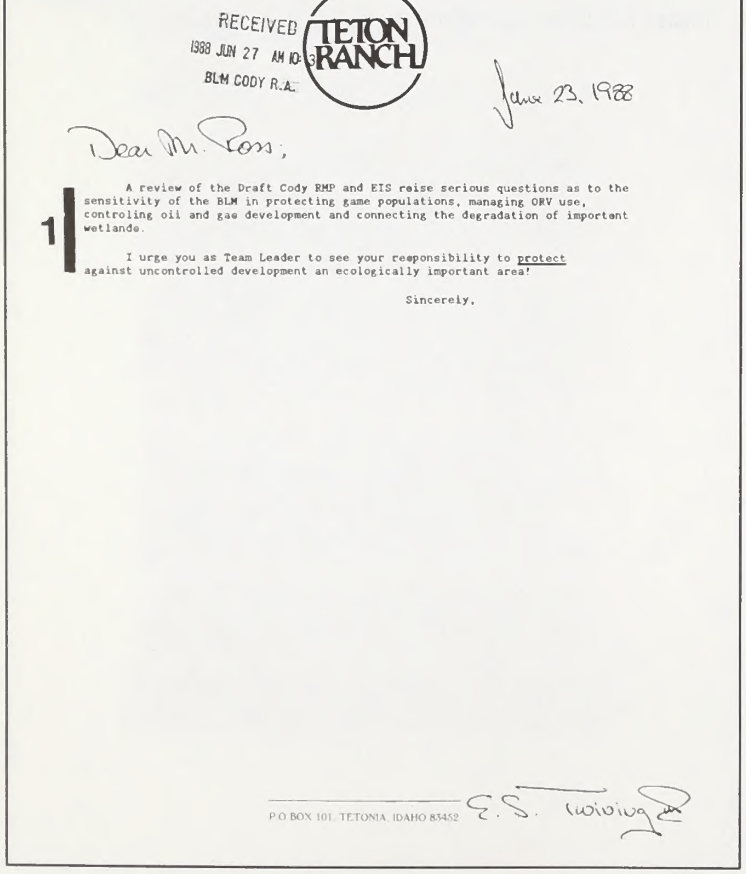
1 I am writing you as I am a very concerned Montanan about what Wyoming is planning for the sensitive and exceptional Cody Resource Area. As an important ecological area bordering our tremendous Yellowstone Nat. Park and the Shoshone Nat. Forest, I feel strict use regulations must be implemented to avoid further overuse and degradation by ORV's, livestock grazing, and oil and gas leasing. It harbors a great variety of wildlife that is both endangered and rare, plus a rich treasure of archaeological sites and caverns. I applaud the Draft RmP proposal to designate Areas of Critical Environmental Concern. Nevertheless, I am concerned that stricter management regulations do not address the ongoing degradation of the wetland areas. Similarly, ORV use should be strictly limited to areas on existing roads, livestock grazing must be carefully managed only where it is appropriate and won't interfere with wildlife recovery, and oil and gas leasing should be prohibited. aS a fellow citizen living on the border of Yellowstone National Park, I hope you will consider my comments when drafting the use regulations for the Cody Resource aRea.

Thank you for your attention.

Sincerely,

/s/ Naomi Fink

31



RECEIVED
1988 JUN 27 AM 10:3
BLM CODY R.A.

TETON RANCH

June 23, 1988

Dear Mr. Ross;

1 A review of the Draft Cody RMP and EIS raise serious questions as to the sensitivity of the BLM in protecting game populations, managing ORV use, controling oil and gas development and connecting the degradation of importent wetlands.

I urge you as Team Leader to see your responsibility to protect against uncontrolled development an ecologically important area!

Sincerely,

E. S. Twining

P.O. BOX 101, TETONIA, IDAHO 83452

Group Response to Letters 30 through 36

The concerns in these letters have been addressed in general responses 3, 4, and 5.

32

Dear Bob Ross,
Team Leader
BLM, Cody Resource Area
P. O. Box 518
Cody, WY 82414

June 23, 1988

I would like to comment on the Cody Resource Management Plan Draft. For five years I lived in the area around Cody, I grew to love that country dearly and it still, more than anywhere else, feels like home. 1 I object to the proposal to release 98.7% of the land in the Cody RMP to oil and gas development. I also can't imagine any vast benefits of harvesting timber in the Rattlesnake Mountain area versus its importance as elk winter range. I would also like to see rehabilitation of the areas wetland and riparian zones which have been degraded by overgrazing. I object to any increase in ORV use, and finally, I would like to see the mouth of the Clarks Fork Canyon protected as an Outstanding Natural Area.

Thank you for accepting my comments.
Sincerely,
/s/ Caroline Byrd
P. O. Box 7313
Missoula, MT
59807

33

Hoechst-Roussel Pharmaceuticals Inc.
Hoechst

Kenneth J. Koop
Sales Representative
1052 Ski Park Court
Rio Linda, California 95673
(916) 991-0542

RECEIVED
1988 JUN 27 AM 10 36
BLM CODY R.A.

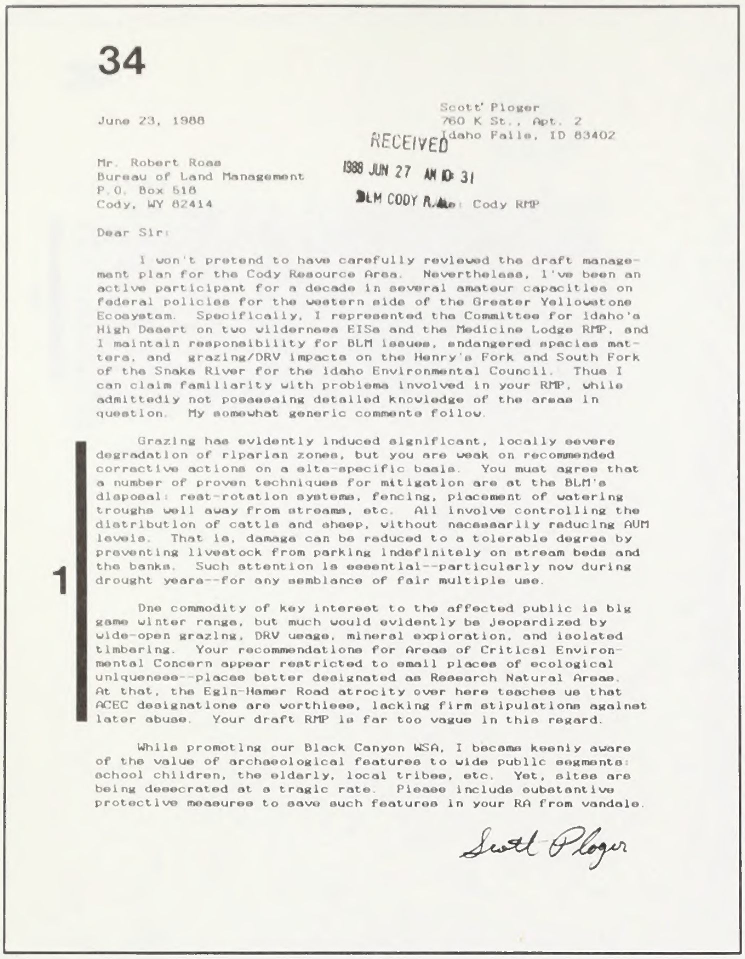
Mr. Ross.

I would like to comment on the "Draft Cody Resource Management Plan" 1 I feel a number of areas need to be addressed in regards to oil & gas leasing. All ACEC's (Areas of Critical Environmental Concern) should prohibit oil & gas leasing and development to protect this resource next to Yellowstone N.P. also ORV's should not be allowed beyond existing Roads and in regards to livestock, it should be carefully managed where it is appropriate to have the livestock graze to begin with.

Of particular concern is the Resource Management Plan's failure to adequately protect the mouth of the Clarks Fork Canyon, which has been proposed for a Wild & Scenic River. This area should be designated as a "outstanding natural area" and a ACEC. Management should enhance the unique values of this segment of the Clarks Fork and should complement the Wild & Scenic recommendation of the adjacent Shoshone Forest

Thank you

/s/ Kenneth J Koop



34

June 23, 1988

Scott Ploger
760 K St., Apt. 2
Idaho Falls, ID 83402

RECEIVED
1988 JUN 27 AM 10 31
BLM CODY R.A.

Mr. Robert Ross
Bureau of Land Management
P.O. Box 518
Cody, WY 82414

Re: Cody RMP

Dear Sir:

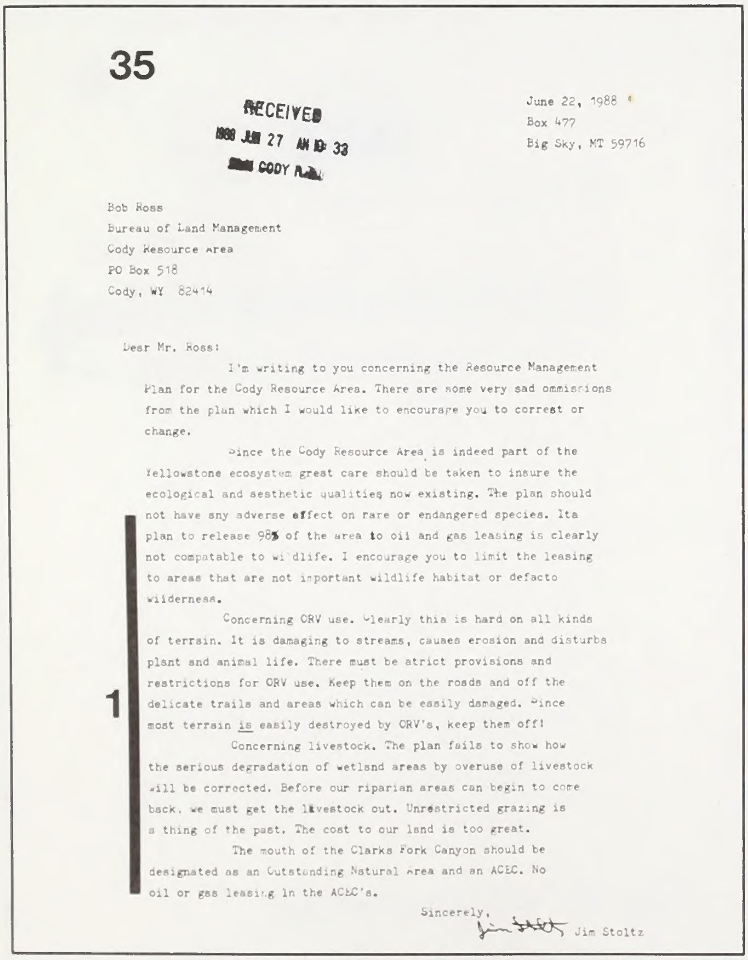
I won't pretend to have carefully reviewed the draft management plan for the Cody Resource Area. Nevertheless, I've been an active participant for a decade in several amateur capacities on federal policies for the western side of the Greater Yellowstone Ecosystem. Specifically, I represented the Committee for Idaho's High Desert on two wilderness EISs and the Medicine Lodge RMP, and I maintain responsibility for BLM issues, endangered species matters, and grazing/ORV impacts on the Henry's Fork and South Fork of the Snake River for the Idaho Environmental Council. Thus I can claim familiarity with problems involved in your RMP, while admittedly not possessing detailed knowledge of the areas in question. My somewhat generic comments follow.

1 Grazing has evidently induced significant, locally severe degradation of riparian zones, but you are weak on recommended corrective actions on a site-specific basis. You must agree that a number of proven techniques for mitigation are at the BLM's disposal: rest-rotation systems, fencing, placement of watering troughs well away from streams, etc. All involve controlling the distribution of cattle and sheep, without necessarily reducing AUM levels. That is, damage can be reduced to a tolerable degree by preventing livestock from parking indefinitely on stream beds and the banks. Such attention is essential--particularly now during drought years--for any semblance of fair multiple use.

One commodity of key interest to the affected public is big game winter range, but much would evidently be jeopardized by wide-open grazing, ORV usage, mineral exploration, and isolated timbering. Your recommendations for Areas of Critical Environmental Concern appear restricted to small places of ecological uniqueness--places better designated as Research Natural Areas. At that, the Egin-Hamer Road atrocity over here teaches us that ACEC designations are worthless, lacking firm stipulations against later abuse. Your draft RMP is far too vague in this regard.

While promoting our Black Canyon WSA, I became keenly aware of the value of archaeological features to wide public segments: school children, the elderly, local tribes, etc. Yet, sites are being desecrated at a tragic rate. Please include substantive protective measures to save such features in your RA from vandals.

Scott Ploger



35

RECEIVED
1988 JUN 27 AM 10 33
BLM CODY R.A.

June 22, 1988
Box 477
Big Sky, MT 59716

Bob Ross
Bureau of Land Management
Cody Resource Area
PO Box 518
Cody, WY 82414

Dear Mr. Ross:

I'm writing to you concerning the Resource Management Plan for the Cody Resource Area. There are some very sad ommissions from the plan which I would like to encourage you to correct or change.

Since the Cody Resource Area is indeed part of the Yellowstone ecosystem great care should be taken to insure the ecological and aesthetic qualities now existing. The plan should not have any adverse effect on rare or endangered species. Its plan to release 98% of the area to oil and gas leasing is clearly not compatable to wildlife. I encourage you to limit the leasing to areas that are not important wildlife habitat or defacto wilderness.

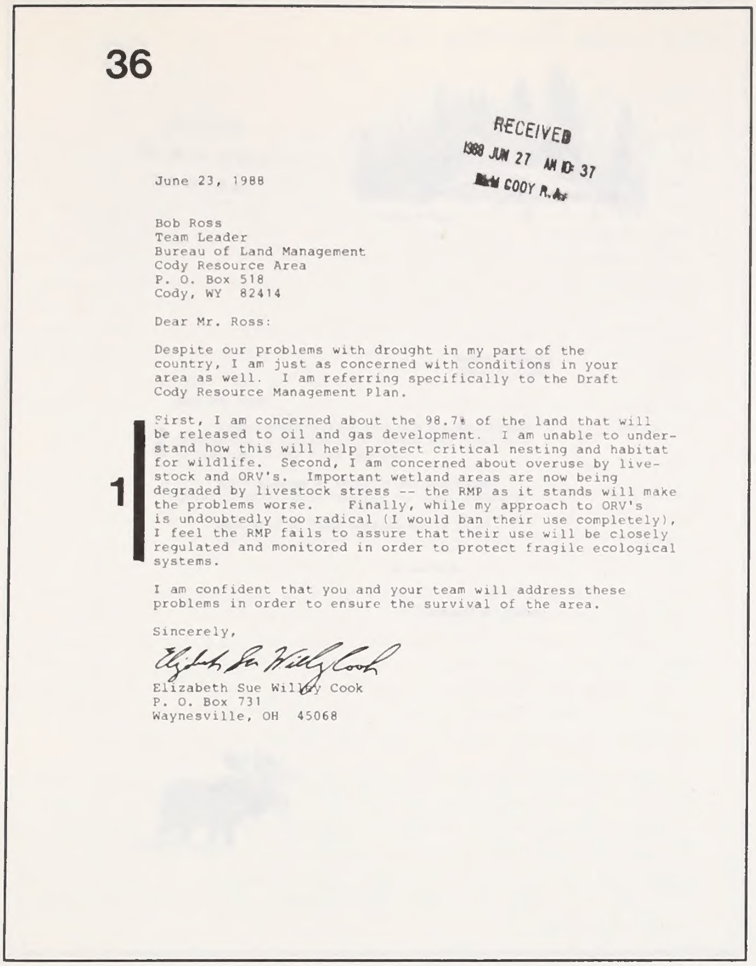
1 Concerning ORV use. Clearly this is hard on all kinds of terrain. It is damaging to streams, causes erosion and disturbs plant and animal life. There must be strict provisions and restrictions for ORV use. Keep them on the roads and off the delicate trails and areas which can be easily damaged. Since most terrain is easily destroyed by ORV's, keep them off!

Concerning livestock. The plan fails to show how the serious degradation of wetland areas by overuse of livestock will be corrected. Before our riparian areas can begin to come back, we must get the livestock out. Unrestricted grazing is a thing of the past. The cost to our land is too great.

The mouth of the Clarks Fork Canyon should be designated as an Outstanding Natural Area and an ACEC. No oil or gas leasing in the ACEC's.

Sincerely,
Jim Stoltz Jim Stoltz

36



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1988 JUN 27 AM 10: 37
BLM CODY R.A.

June 23, 1988

Bob Ross
Team Leader
Bureau of Land Management
Cody Resource Area
P. O. Box 518
Cody, WY 82414

Dear Mr. Ross:

Despite our problems with drought in my part of the country, I am just as concerned with conditions in your area as well. I am referring specifically to the Draft Cody Resource Management Plan.

1 First, I am concerned about the 98.7% of the land that will be released to oil and gas development. I am unable to understand how this will help protect critical nesting and habitat for wildlife. Second, I am concerned about overuse by livestock and ORV's. Important wetland areas are now being degraded by livestock stress -- the RMP as it stands will make the problems worse. Finally, while my approach to ORV's is undoubtedly too radical (I would ban their use completely), I feel the RMP fails to assure that their use will be closely regulated and monitored in order to protect fragile ecological systems.

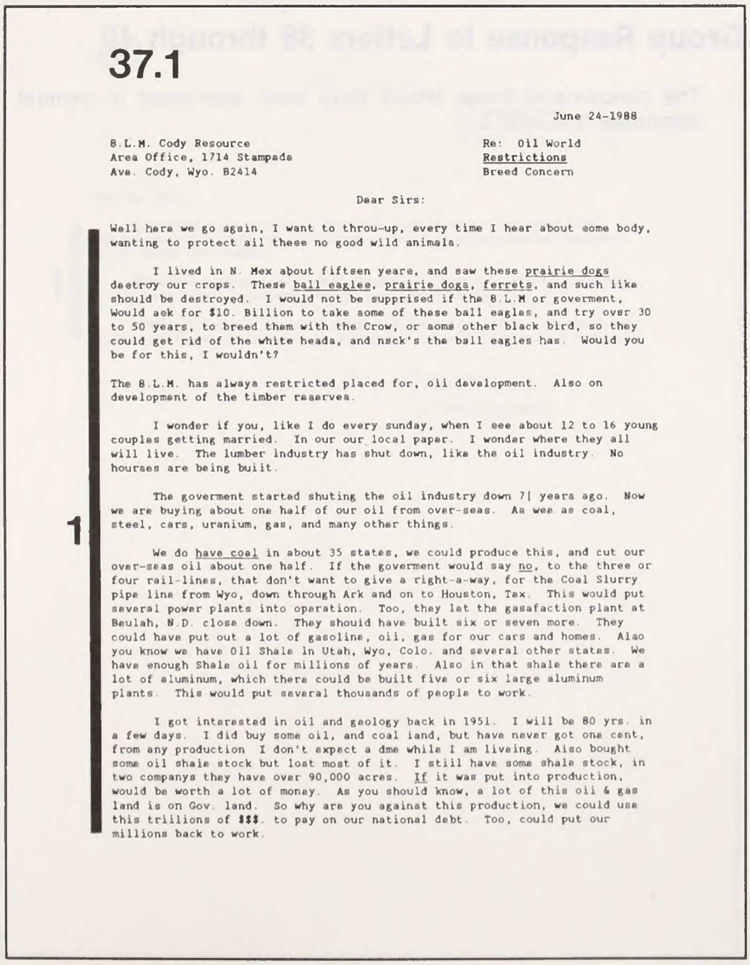
I am confident that you and your team will address these problems in order to ensure the survival of the area.

Sincerely,

Elizabeth Sue Willey Cook

Elizabeth Sue Willey Cook
P. O. Box 731
Waynesville, OH 45068

37.1



June 24-1988

B.L.M. Cody Resource
Area Office, 1714 Stampede
Ave. Cody, Wyo. 82414

Re: Oil World
Restrictions
Breed Concern

Dear Sirs:

1 Well here we go again, I want to throu-up, every time I hear about some body, wanting to protect all these no good wild animals.

I lived in N. Mex about fiftsen years, and saw these prairie dogs destroy our crops. These ball eagles, prairie dogs, ferrets, and such like should be destroyed. I would not be supprised if the B.L.M or goverment, Would ask for $10. Billion to take some of these ball eagles, and try over 30 to 50 years, to breed them with the Crow, or some other black bird, so they could get rid of the white heads, and neck's the ball eagles has. Would you be for this, I wouldn't?

The B.L.M. has always restricted placed for, oil development. Also on development of the timber reserves.

I wonder if you, like I do every sunday, when I see about 12 to 16 young couples getting married. In our our local paper. I wonder where they all will live. The lumber industry has shut down, like the oil industry. No hourses are being built.

The goverment started shuting the oil industry down 7[years ago. Now we are buying about one half of our oil from over-seas. As wee as coal, steel, cars, uranium, gas, and many other things.

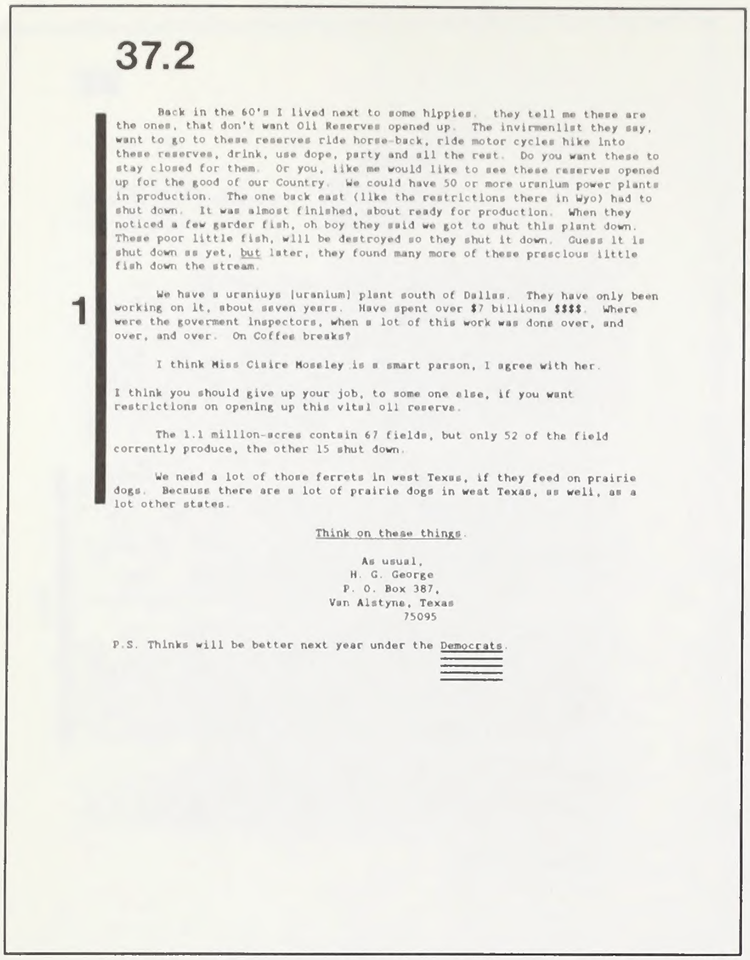
We do have coal in about 35 states, we could produce this, and cut our over-seas oil about one half. If the goverment would say no, to the three or four rail-lines, that don't want to give a right-a-way, for the Coal Slurry pipe line from Wyo, down through Ark and on to Houston, Tex. This would put several power plants into operation. Too, they let the gasafaction plant at Beulah, N.D. close down. They should have built six or seven more. They could have put out a lot of gasoline, oil, gas for our cars and homes. Also you know we have Oil Shale in Utah, Wyo, Colo. and several other states. We have enough Shale oil for millions of years. Also in that shale there are a lot of aluminum, which there could be built five or six large aluminum plants. This would put several thousands of people to work.

I got interested in oil and geology back in 1951. I will be 80 yrs. in a few days. I did buy some oil, and coal land, but have never got one cent, from any production I don't expect a dme while I am liveing. Also bought some oil shale stock but lost most of it. I still have some shale stock, in two companys they have over 90,000 acres. If it was put into production, would be worth a lot of money. As you should know, a lot of this oil & gas land is on Gov. land. So why are you against this production, we could use this trillions of $$$. to pay on our national debt. Too, could put our millions back to work.

Response to Letter 37

1. Thank you for your comment.

37.2



1 Back in the 60's I lived next to some hippies. they tell me these are the ones, that don't want Oil Reserves opened up. The invirmenlist they say, want to go to these reserves ride horse-back, ride motor cycles hike into these reserves, drink, use dope, party and all the rest. Do you want these to stay closed for them. Or you, like me would like to see these reserves opened up for the good of our Country. We could have 50 or more uranium power plants in production. The one back east (like the restrictions there in Wyo) had to shut down. It was almost finished, about ready for production. When they noticed a few garder fish, oh boy they said we got to shut this plant down. These poor little fish, will be destroyed so they shut it down. Guess it is shut down as yet, but later, they found many more of these presclous little fish down the stream.

We have a uraniuys [uranium] plant south of Dallas. They have only been working on it, about seven years. Have spent over $7 billions $$$$. Where were the goverment inspectors, when a lot of this work was done over, and over, and over. On Coffee breaks?

I think Miss Claire Moseley is a smart parson, I agree with her.

I think you should give up your job, to some one else, if you want restrictions on opening up this vital oil reserve.

The 1.1 million-acres contain 67 fields, but only 52 of the field corrently produce, the other 15 shut down.

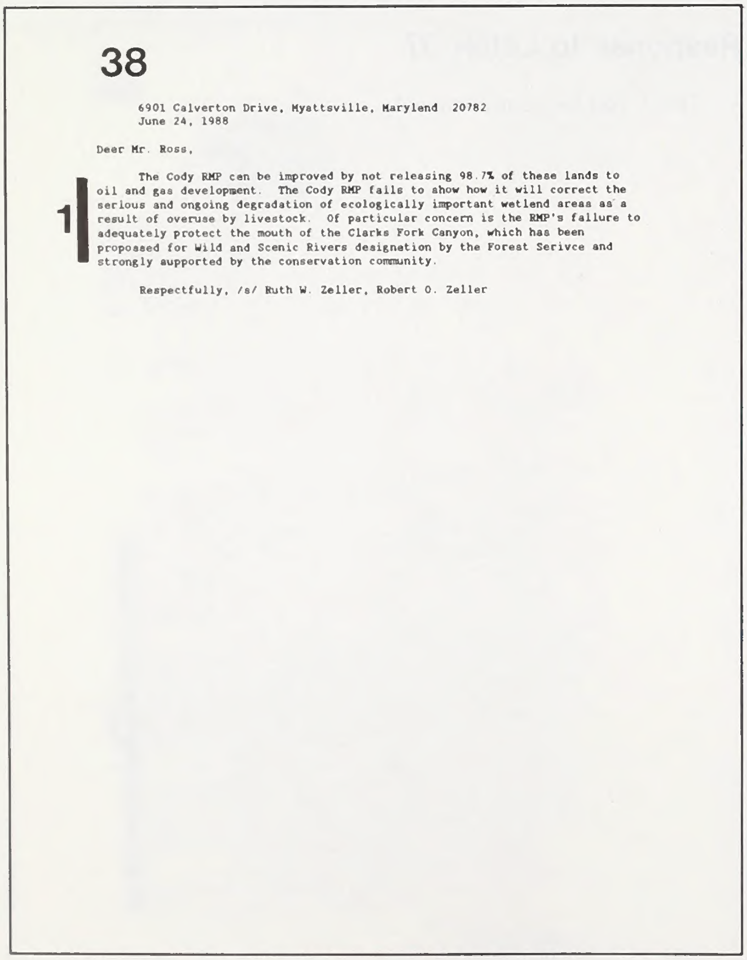
We need a lot of those ferrets in west Texas, if they feed on prairie dogs. Because there are a lot of prairie dogs in west Texas, as well, as a lot other states.

Think on these things.

As usual,
H. G. George
P. O. Box 387,
Van Alstyne, Texas
75095

P.S. Thinks will be better next year under the Democrats.

38



6901 Calverton Drive, Hyattsville, Maryland 20782
June 24, 1988

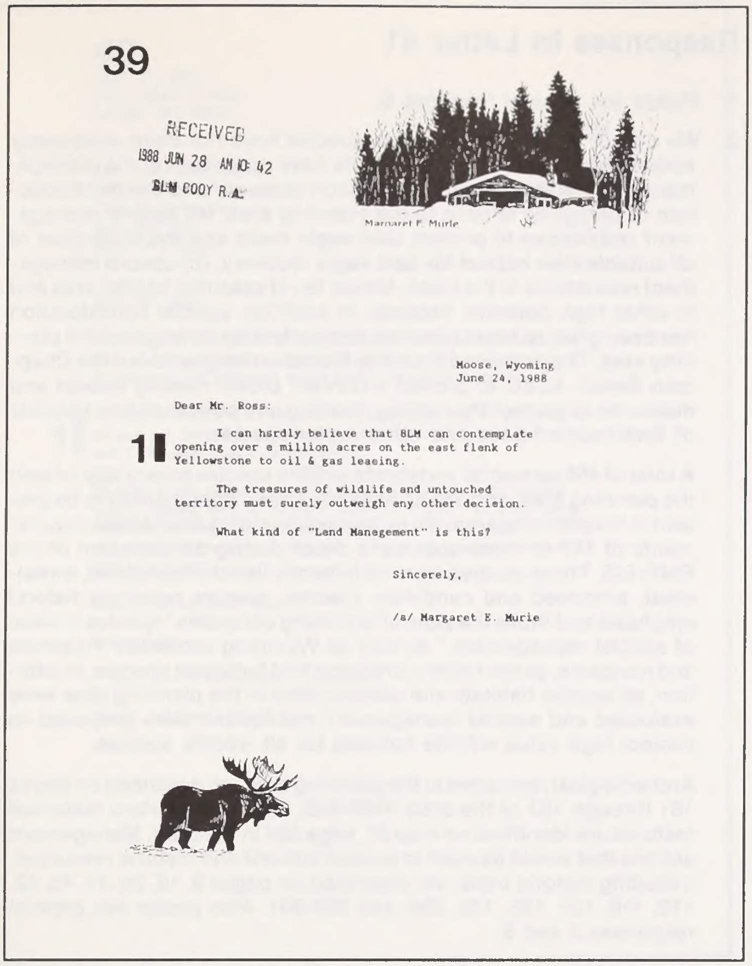
Dear Mr. Ross,

1 The Cody RMP can be improved by not releasing 98.7% of these lands to oil and gas development. The Cody RMP fails to show how it will correct the serious and ongoing degradation of ecologically important wetland areas as a result of overuse by livestock. Of particular concern is the RMP's failure to adequately protect the mouth of the Clarks Fork Canyon, which has been proposed for Wild and Scenic Rivers designation by the Forest Serivce and strongly supported by the conservation community.

Respectfully, /s/ Ruth W. Zeller, Robert O. Zeller

Group Response to Letters 38 through 40

The concerns in these letters have been addressed in general responses 3, 4, and 5.



39

RECEIVED
1988 JUN 28 AM 10: 42
BLM CODY R.A.

Margaret E. Murie

Moose, Wyoming
June 24, 1988

Dear Mr. Ross:

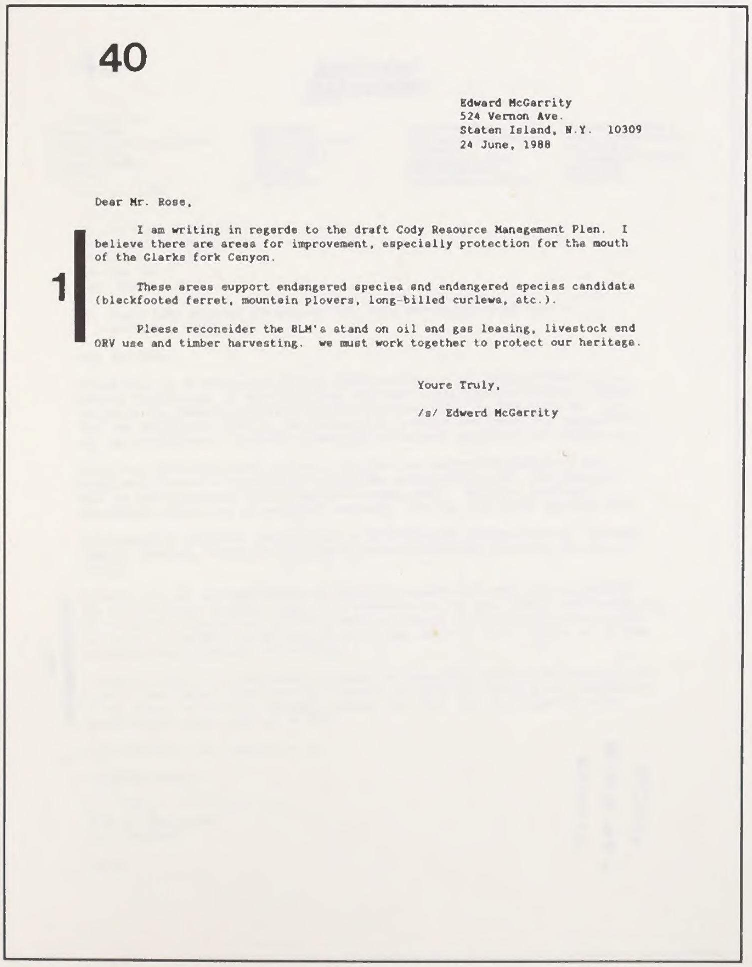
1 I can hardly believe that BLM can contemplate opening over a million acres on the east flank of Yellowstone to oil & gas leasing.

The treasures of wildlife and untouched territory must surely outweigh any other decision.

What kind of "Land Management" is this?

Sincerely,

/s/ Margaret E. Murie



40

Edward McGarrity
524 Vernon Ave.
Staten Island, N.Y. 10309
24 June, 1988

Dear Mr. Rose,

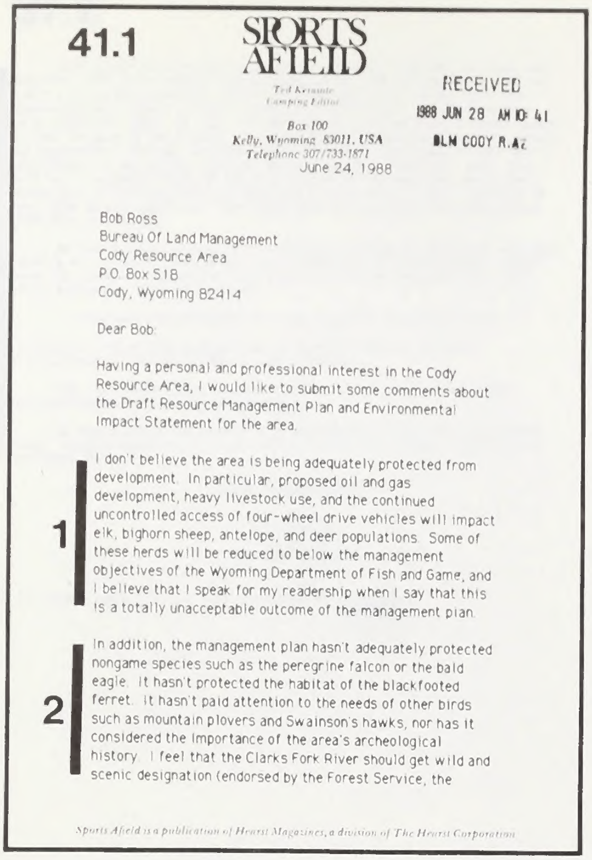
1 I am writing in regards to the draft Cody Resource Management Plan. I believe there are areas for improvement, especially protection for the mouth of the Clarks fork Canyon.

These areas support endangered species and endangered species candidate (blackfooted ferret, mountain plovers, long-billed curlews, etc.).

Please reconsider the BLM's stand on oil and gas leasing, livestock and ORV use and timber harvesting. we must work together to protect our heritage.

Yours Truly,

/s/ Edward McGarrity



41.1

SPORTS AFIELD
Ted Kerasote
Camping Editor
Box 100
Kelly, Wyoming 83011, USA
Telephone 307/733-1871

RECEIVED
1988 JUN 28 AM 10: 41
BLM CODY R.A.

June 24, 1988

Bob Ross
Bureau Of Land Management
Cody Resource Area
P.O. Box 518
Cody, Wyoming 82414

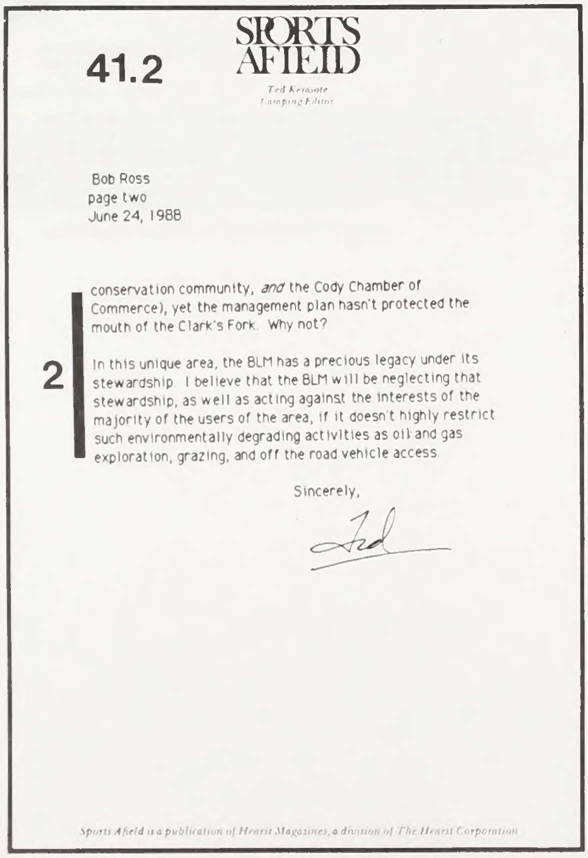
Dear Bob:

Having a personal and professional interest in the Cody Resource Area, I would like to submit some comments about the Draft Resource Management Plan and Environmental Impact Statement for the area.

1 I don't believe the area is being adequately protected from development. In particular, proposed oil and gas development, heavy livestock use, and the continued uncontrolled access of four-wheel drive vehicles will impact elk, bighorn sheep, antelope, and deer populations. Some of these herds will be reduced to below the management objectives of the Wyoming Department of Fish and Game, and I believe that I speak for my readership when I say that this is a totally unacceptable outcome of the management plan.

2 In addition, the management plan hasn't adequately protected nongame species such as the peregrine falcon or the bald eagle. It hasn't protected the habitat of the blackfooted ferret. It hasn't paid attention to the needs of other birds such as mountain plovers and Swainson's hawks, nor has it considered the importance of the area's archeological history. I feel that the Clarks Fork River should get wild and scenic designation (endorsed by the Forest Service, the

Sports Afield is a publication of Hearst Magazines, a division of The Hearst Corporation



41.2

SPORTS AFIELD
Ted Kerasote
Camping Editor

Bob Ross
page two
June 24, 1988

2 conservation community, *and* the Cody Chamber of Commerce), yet the management plan hasn't protected the mouth of the Clark's Fork. Why not?

In this unique area, the BLM has a precious legacy under its stewardship. I believe that the BLM will be neglecting that stewardship, as well as acting against the interests of the majority of the users of the area, if it doesn't highly restrict such environmentally degrading activities as oil and gas exploration, grazing, and off the road vehicle access.

Sincerely,

Ted

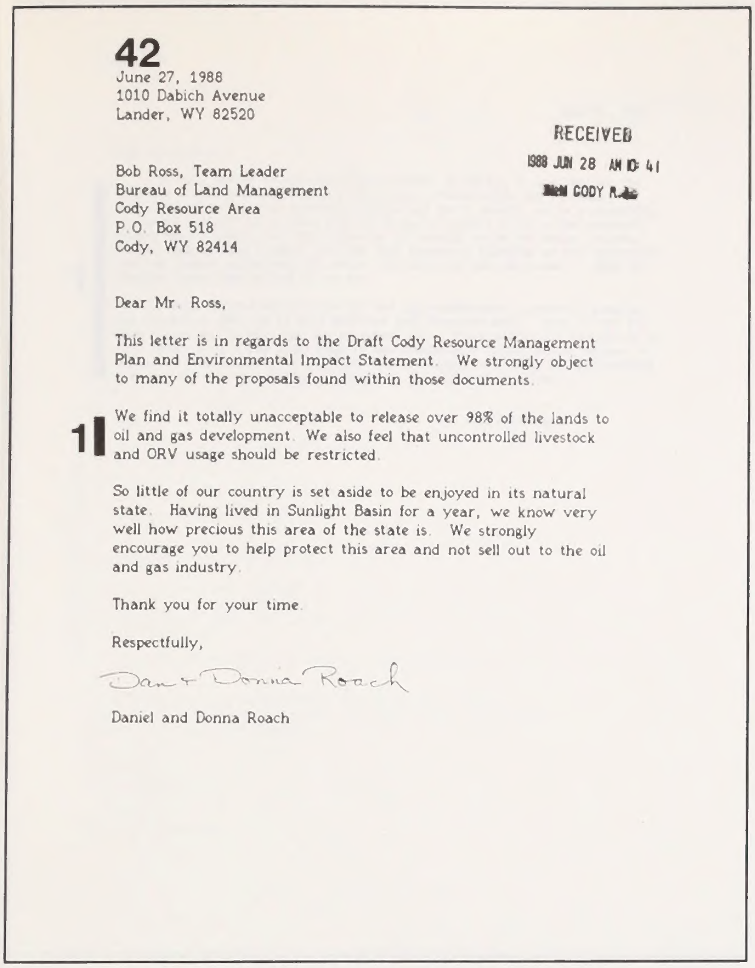
Sports Afield is a publication of Hearst Magazines, a division of The Hearst Corporation

Responses to Letter 41

1. Please see general response 6.
2. We do not agree that nongame species have not been adequately addressed in the draft RMP/EIS. We have proposed (a) the management of six areas for peregrine falcon recovery and the reintroduction of peregrine falcons to the planning area, (b) special management restrictions to protect bald eagle nests and the protection of all suitable river habitat for bald eagle recovery, (c) special management restrictions in the black-footed ferret essential habitat area and in other high potential habitats. In addition, special consideration has been given to ferret recovery and protection throughout the planning area. The proposed plan also includes designation of the Chapman Bench ACEC to protect mountain plover nesting habitat and measures to protect the nesting, feeding and concentration habitats of Swainson's hawks and other raptor species.

A total of 455 terrestrial vertebrate wildlife species potentially inhabit the planning area, and 384 species have been documented to be present in the planning area. We examined the status and habitat requirements of 117 of those species in detail during development of the RMP/EIS. Those studied were all federally listed endangered, threatened, proposed and candidate species, species receiving federal emphasis and those the state of Wyoming considers "species in need of special management," as well as Wyoming protected mammals and nongame, game, trophy, predator, and furbearer species. In addition, all wildlife habitats and communities in the planning area were evaluated and special management restrictions were proposed to protect high value wildlife habitats for all wildlife species.

Archeological resources in the planning area are described on pages 161 through 167 of the draft RMP/EIS. Several important historical features are identified on map 37, page 264 in the draft. Management actions that would be used to protect cultural and historic resources, including historic trails, are described on pages 9, 10, 29, 31, 40, 42, 112, 116, 121, 125, 130, 296, and 299-301. Also please see general responses 3 and 5.



42

June 27, 1988
1010 Dabich Avenue
Lander, WY 82520

RECEIVED
1988 JUN 28 AM 10: 41
BLM CODY R.A.

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

Dear Mr. Ross,

This letter is in regards to the Draft Cody Resource Management Plan and Environmental Impact Statement. We strongly object to many of the proposals found within those documents.

1 We find it totally unacceptable to release over 98% of the lands to oil and gas development. We also feel that uncontrolled livestock and ORV usage should be restricted.

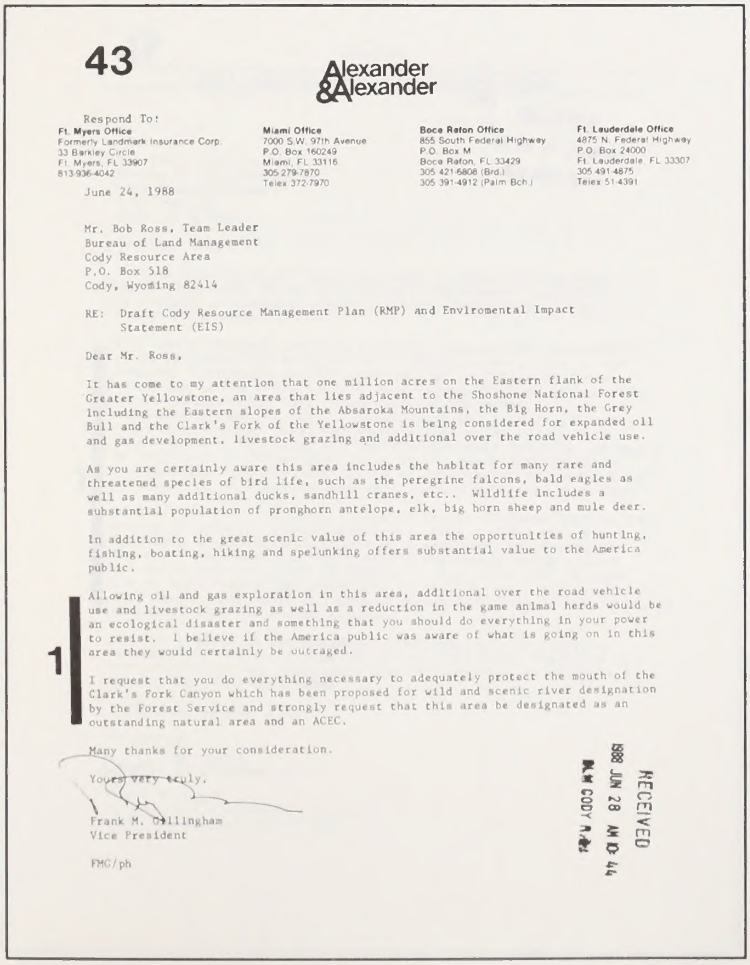
So little of our country is set aside to be enjoyed in its natural state. Having lived in Sunlight Basin for a year, we know very well how precious this area of the state is. We strongly encourage you to help protect this area and not sell out to the oil and gas industry.

Thank you for your time.

Respectfully,

Dan + Donna Roach

Daniel and Donna Roach



43

Alexander & Alexander

Respond To:

Ft. Myers Office
Formerly Landmark Insurance Corp.
33 Barkley Circle
Ft. Myers, FL 33907
813-936-4042

Miami Office
7000 S.W. 97th Avenue
P.O. Box 160249
Miami, FL 33116
305-279-7870
Telex 372-7970

Boca Raton Office
855 South Federal Highway
P.O. Box M
Boca Raton, FL 33429
305 421-6808 (Brd.)
305 391-4912 (Palm Bch.)

Ft. Lauderdale Office
4875 N. Federal Highway
P.O. Box 24000
Ft. Lauderdale, FL 33307
305 491-4875
Telex 51-4391

June 24, 1988

Mr. Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, Wyoming 82414

RE: Draft Cody Resource Management Plan (RMP) and Enviromental Impact Statement (EIS)

Dear Mr. Ross,

It has come to my attention that one million acres on the Eastern flank of the Greater Yellowstone, an area that lies adjacent to the Shoshone National Forest including the Eastern slopes of the Absaroka Mountains, the Big Horn, the Grey Bull and the Clark's Fork of the Yellowstone is being considered for expanded oil and gas development, livestock grazing and additional over the road vehicle use.

As you are certainly aware this area includes the habitat for many rare and threatened species of bird life, such as the peregrine falcons, bald eagles as well as many additional ducks, sandhill cranes, etc.. Wildlife includes a substantial population of pronghorn antelope, elk, big horn sheep and mule deer.

In addition to the great scenic value of this area the opportunities of hunting, fishing, boating, hiking and spelunking offers substantial value to the America public.

1 Allowing oil and gas exploration in this area, additional over the road vehicle use and livestock grazing as well as a reduction in the game animal herds would be an ecological disaster and something that you should do everything in your power to resist. I believe if the America public was aware of what is going on in this area they would certainly be outraged.

I request that you do everything necessary to adequately protect the mouth of the Clark's Fork Canyon which has been proposed for wild and scenic river designation by the Forest Service and strongly request that this area be designated as an outstanding natural area and an ACEC.

Many thanks for your consideration.

Yours very truly,

Frank M. Gillingham
Vice President

FMG/ph

RECEIVED
1988 JUN 28 AM 10: 44
BLM CODY R.A.

Group Response to Letters 42 through 55

The concerns in these letters have been addressed in general responses 3, 4, and 5.

44

JOHN R. SWANSON
P. O. Box 6554
Minneapolis, Minn. 55406

June 24, 1988
Bureau of Land Management
P. O. Box 518
Cody, Wyoming 82414.

Dear Sirs;

Please accept my comments, as follows, concerning
Cody Draft Resource Management Plan Environmental Impact Statement;
Bureau of Land Management, State of Wyoming.
The Cody Resource Area of Wyoming contains outstanding Wilderness, wildlife-biological, cultural and scenic resources of certain National significance. As this Resource Area provides a vital refuge for Man, and for all life, on this endangered planet with this area presenting unique, varied, and, essentially, fragile natural features.

1 I, then, wish to advise that I oppose this Oraft Plan, as it is designed to decimate much of the Cody Resource Area. and if this Resource Area is to survive, and if this Resource ARea is to best serve man, and all to be this Cody Resource Area must be designated as a National Natural Preserve; and with No surface-subsurface activities - developments with such National Natural Preserve to protect ecosystems, preserve watersheds, save and enhance all wildlife, fish and botanic habitats - areas, protect and promote all biological resources and their natural diversity, preserve rivers and streams - creeks, recover and restore all used - damaged areas to their natural environment condition, and to preserve, protect, strengthen and expand wilderness.

To dedicate McCullough Peaks as a Wilderness of some (at least) 32,000 acres and to secure a total of about 665,000 acres of Wilderness to be located on this Cody Resource ARea, only, Bureau of Land Management administered area, only, to include rivers and streams - creeks in our National Wild and Scenic Rivers System, such as the following rivers, for example:
Big Horn, Shoshone, Greybull and Clark's Fork
To classify this area as a National Critical Habitat Area; so as to fully preserve the black footed ferret, bald eagle and peregrine falcon for example.

To acquire all Inholdings on all Public Lands. With No Oisposal of any Public Lands.

For when we save our Natural lands and waters; we save America!

Sincerely,

/s/ John R. Swanson

45

6-27-88

Bob Ross
Team Leader
BLM
Cody Resources Area
PO Box 518
Cody, Wy 82414

Oear Sir,

We strenuously object to release of 98.7% of the Cody Resources Area to oil and gas leasing. Also, the draft deficiently allows almost unrestricted Livestock & ORV use - combined with near by overcutting in the surrounding National Forests serious reductions in game populations will occur. Your ORMP doesn't address to overgrazed terrain, and the state of the riparian zones are already unacceptable! 8LM continues to amaze and live up to its name - 8ureau of Livestock and Mining - the influence of Cody businessmen is felt again, after the NPS buckled under to allow Fishing Bridge RV park to stay open! Assert yourself now!

1 (1) The RMP fails to safeguard scenic, ecological, recreational, and geological features - there are no meaningful (with teeth!) restrictions in its use from ORV and mineral leasing damage! All ACEC should probit oil and gas leasing, ORV use off existing roads, and manage livestock in our public rangeland so as not to further impact (negatively) native game and non-game populations.

(2) We are especially disappointed that the RMP does not adequately protect the mouth of of Clark's Fork Canyon, which in 1979 was highlighted by the U S Forest Service through an EIS as a wonderful candidate for Wild & Scenic River status. We support the 21.5 mile designation of this river into the Wild & Scenic River System.

Regards

Dave & Lauren Naslund
2450 Fenton Edgewater, Colorado 80214

46

June 26, 1988

Dear Mr. Ross:

1 In this age of so-called enlightenment, as we sit by and observe the terrible devastation and degradation of the irreplaceable and wondrous beauties God put on this earth to gladden all men's hearts, it is a wrenching sorrow to millions of us that most of those in control allow a few soulless, greedy men to profit over the ruination of nesting sites for ducks, herons, cranes, eagles, and falcons, and the last remaining habitats of the mysterious and magnificent grizzlies, the moose, the elk, and the wolverine -- when in reality those areas belong to us all!

Please, please don't allow oil and gas development, livestock grazing, and relentless ORV use in this wondrous Cody Resource Area. Save it and its wild rivers and forests for the preservation of its wildlife and the joy of us all. Where only a few years past we saw innumerable ducks, geese, herons, & cranes in Jackson Hole, it is a rare and exciting event today to spy anything wild and free -- dead and gone because of loss of nesting sites.

/s/ Julia McGregor

47

Joyce Lohse

1410 E. LaSalle • Colorado Springs, CO 80907 • ~~(303)~~ 635-7469
(719)

RECEIVED
1988 JUN 29 PM 12 32
[illegible] CODY R.A.

June 24, 19

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

Dear Mr. Ross:

I would like to go on record as being in opposition to the March 1988 draft of the Cody Resource Management Plan (RMP). My concern is directed toward the environmental impact such a plan would have.

1 With the widespread use of the area in question for recreation, it is difficult for me visualize a 70% increase in use of the area for recreation without endangering the future of flora and fauna in the area, as well as the complexion of the terrain itself. Considering this is the habitat for endangered or near-endangerd species as well as other wildlife, I think this should raise some serious questions about allowing the invasion of this territory by recreation seekers and their vehicles. It would be difficult to debate that there could be any justification for gambling with the possibility of extinction for either plant or animal on this planet, and much less in one's own back yard.

If the area must, in fact, be opened up to increased logging and mining of precious mineral resources, then I would strongly encourage a modification of the plan and heavy monitoring of the area, especially in the areas of recreation which should not be as emminent a use as mining. I would also like to urge you to work toward the protection in particular of the Clarks Fork Canyon area which has been proposed for wild and Scenic Rivers designation by the Forest Service.

For the benefit of our children's children and the future of our delicate planet, I urge you to pay very close attention to the actions of your department before proceeding in encroaching on our vanishing wilderness.

Thank you for your time.

Sincerely,

Joyce B. Lohse

Joyce B. Lohse
author of A YELLOWSTONE SAVAGE,
1988, JD Charles Publishing

48

P.O. Box 50953
Idaho Falls, Idaho 83405
June 24, 1988

RECEIVED
1988 JUN 29 PM 12 34
BLM CODY R.A.

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, Wyoming 82414

Dear Mr. Ross:

Please accept my comments on the recently proposed RMP as follows:

1. I am a former resident of the Big Horn Basin, and as such, am familiar with the landscape and local economy. I also return to the area for recreational purposes on a regular basis.

1

2. I am apalled at the proposed RMP's insensitive and inappropriate treatment of the wildlife and aesthetic resources of the area and at its minimal attention to the negative impacts of RV use.

3. I stand somewhere between amused and amazed at the insistence of the BLM (along with the local chambers of commerce) that extensive oil and gas exploration will provide significant, lasting economic benefits. I am well aware of the economic problems in the Basin and their unfortunate human consequences. But I have been watching the situation long enough to understand that the current stagnation is in large part a direct result of the past dependence on oil and other minerals. The use of large areas of public land for speculative minerals exploration will not only slow the development of a sustainable economy in the Big Horn Basin, but will help assure that such an economy can not develop by degrading the resources on which it could be based.

4. I support the designation of the ACEC's proposed in the RMP, but with the addition of an ACEC at the mouth of the Clark's Fork Canyon and the total withdrawal of those areas from mineral entry. I also support banning ORV use in the ACEC's, except (perhaps) in areas where the BLM can demonstrate there will be NO degradation of range, wildlife habitat, or water quality as a result of that use.

5. To summarize, I believe the proposed RMP requires major revisions and changes before adoption.

Thanks for time in considering these comments.

Yours truly,

Lee Nellis

49

RECEIVED
1988 JUN 29 PM 12 35
BLM CODY R.A.

TODD J. HERREID
P.O. BOX 615
LANGDON, ND 58249

Mr. Bob Ross, Team Leader
Bureau of Land Management
P.O. Box 518
Cody, WY 82414

June 27, 1988

Dear Mr. Ross:

1

I am writing in response to the Draft Cody Resource Management Plan and Environmental Impact Statement that your agency released in March, 1988. This Draft Plan is extremely lop sided in favor of habitat and environmental destruction of the Cody resource area. The call for 98.7% of the area to be open for oil and gas development is a poor use of the resource.

The ecological importance of this area must take precedence over any other use of the land. The area also has scenic qualities that will suffer greatly if the draft is adopted. The short term gain that may be obtained with oil exploration is not worth the scenic and environmental loss that will occur if this area is not protected.

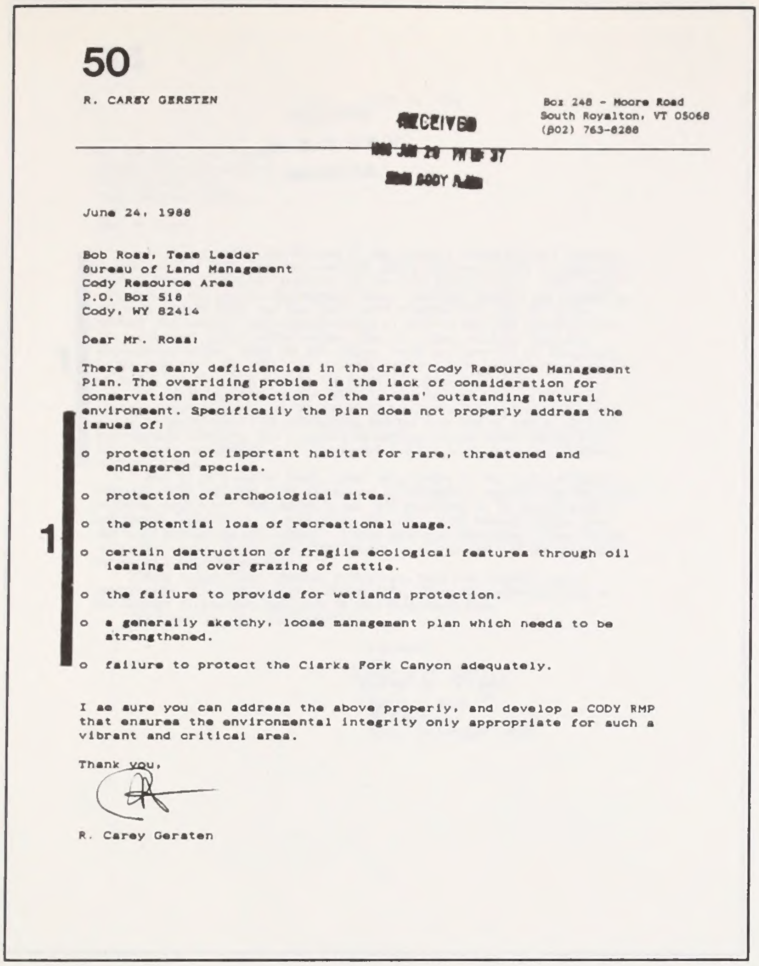
I strongly urge you to alter and amend the draft so top priority is given to this important and beautiful area. The draft one of the most poorly thought out and unfair actions that your agency has ever tried to do.

Please consider this letter when evaluating the final version of the RMP and EIS.

Sincerely,

Todd J. Herreid

Please send me a copy of the revised Plan!



50

R. CAREY GERSTEN

Box 248 - Moore Road
South Royalton, VT 05068
(802) 763-8288

RECEIVED
[illegible] JUN 28 PM [illegible] 37
[illegible] CODY R.A.

June 24, 1988

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

Dear Mr. Ross:

There are many deficiencies in the draft Cody Resource Management Plan. The overriding problem is the lack of consideration for conservation and protection of the areas' outstanding natural environment. Specifically the plan does not properly address the issues of:

o protection of important habitat for rare, threatened and endangered species.

o protection of archeological sites.

1 o the potential loss of recreational usage.

o certain destruction of fragile ecological features through oil leasing and over grazing of cattle.

o the failure to provide for wetlands protection.

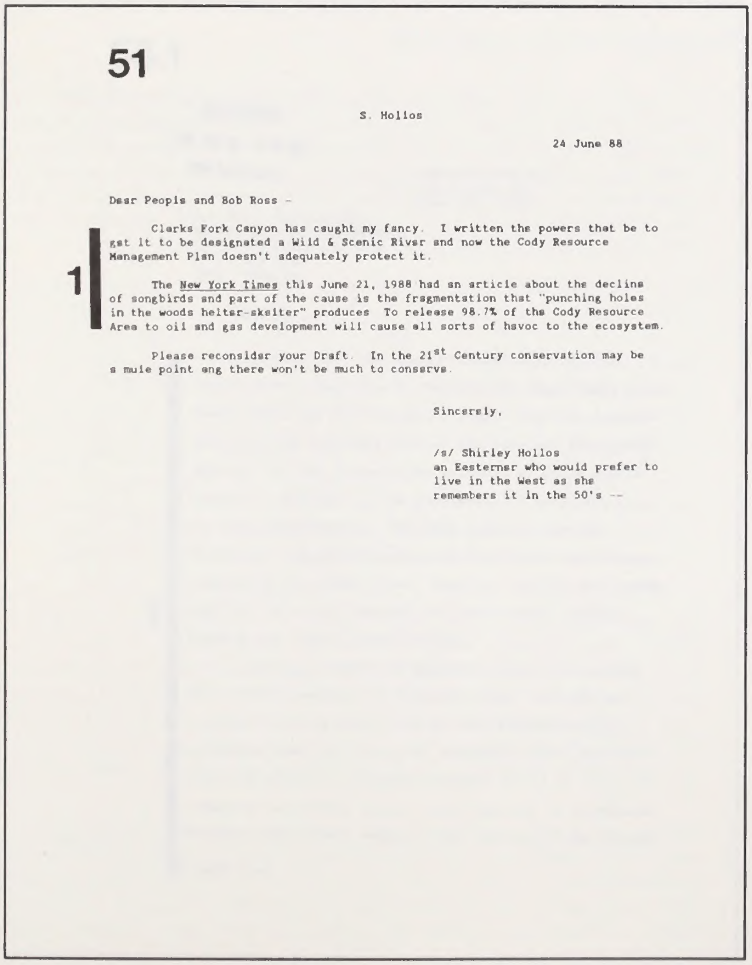
o a generally sketchy, loose management plan which needs to be strengthened.

o failure to protect the Clarks Fork Canyon adequately.

I am sure you can address the above properly, and develop a CODY RMP that ensures the environmental integrity only appropriate for such a vibrant and critical area.

Thank you,

R. Carey Gersten



51

S. Hollos

24 June 88

Dear People and Bob Ross -

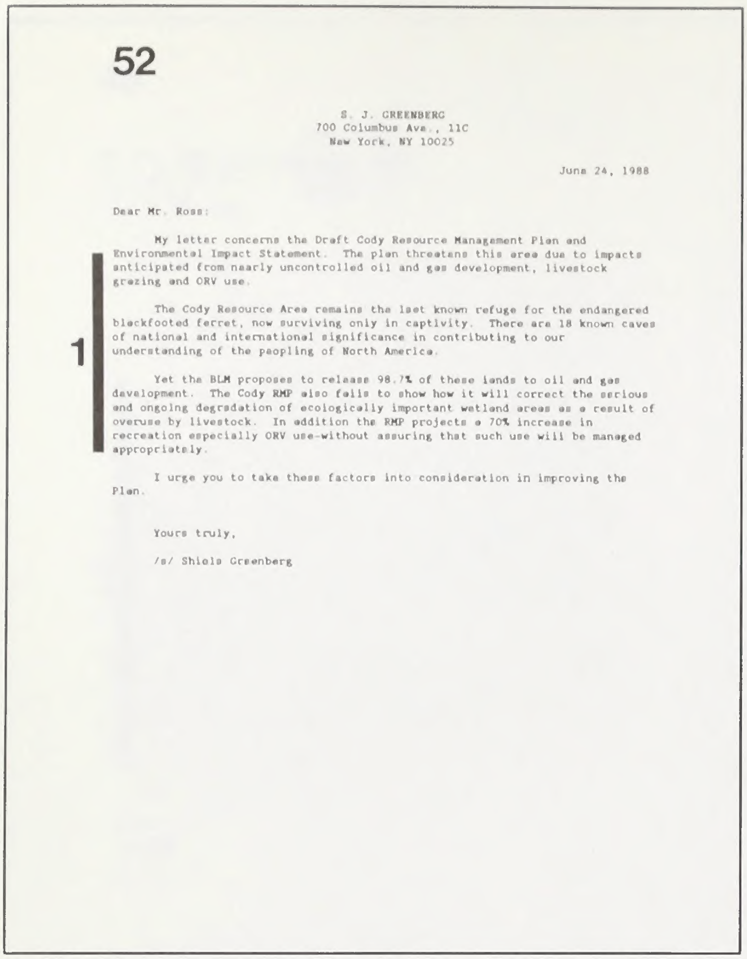
Clarks Fork Canyon has caught my fancy. I written the powers that be to get it to be designated a Wild & Scenic River and now the Cody Resource Management Plan doesn't adequately protect it.

1 The New York Times this June 21, 1988 had an article about the decline of songbirds and part of the cause is the fragmentation that "punching holes in the woods helter-skelter" produces To release 98.7% of the Cody Resource Area to oil and gas development will cause all sorts of havoc to the ecosystem.

Please reconsider your Draft. In the 21st Century conservation may be a mule point and there won't be much to conserve.

Sincerely,

/s/ Shirley Hollos
an Easterner who would prefer to
live in the West as she
remembers it in the 50's --



52

S. J. GREENBERG
700 Columbus Ave., 11C
New York, NY 10025

June 24, 1988

Dear Mr. Ross:

My letter concerns the Draft Cody Resource Management Plan and Environmental Impact Statement. The plan threatens this area due to impacts anticipated from nearly uncontrolled oil and gas development, livestock grazing and ORV use.

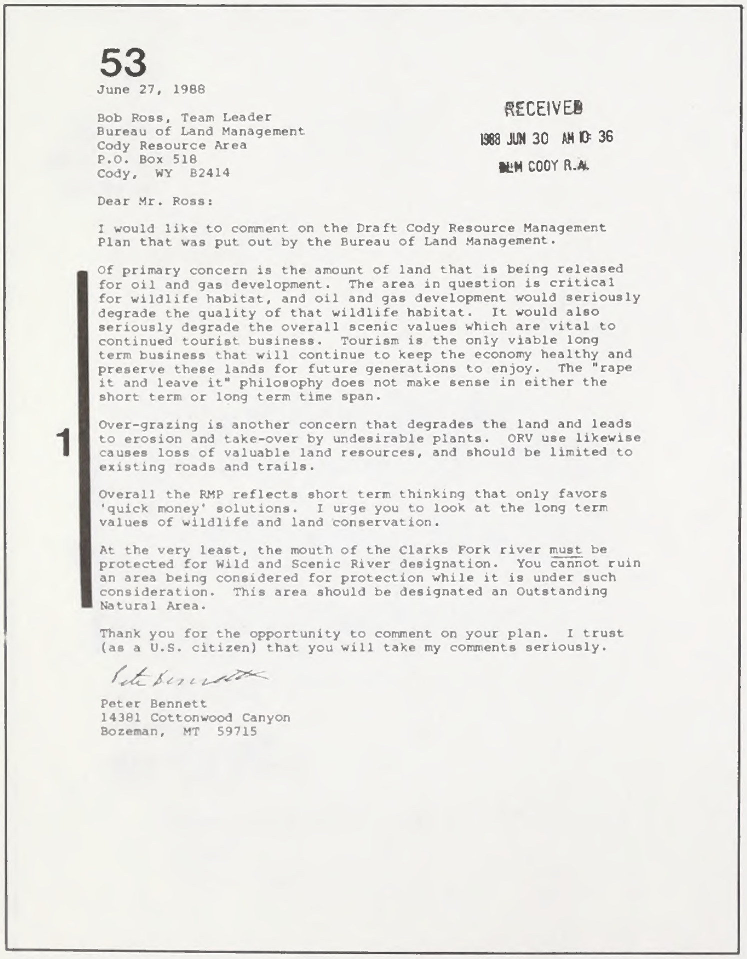
The Cody Resource Area remains the last known refuge for the endangered blackfooted ferret, now surviving only in captivity. There are 18 known caves of national and international significance in contributing to our understanding of the peopling of North America. 1

Yet the BLM proposes to release 98.7% of these lands to oil and gas development. The Cody RMP also fails to show how it will correct the serious and ongoing degradation of ecologically important wetland areas as a result of overuse by livestock. In addition the RMP projects a 70% increase in recreation especially ORV use-without assuring that such use will be managed appropriately.

I urge you to take these factors into consideration in improving the Plan.

Yours truly,

/s/ Shiela Greenberg



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June 27, 1988

RECEIVED
1988 JUN 30 AM 10: 36
BLM CODY R.A.

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY B2414

Dear Mr. Ross:

I would like to comment on the Draft Cody Resource Management Plan that was put out by the Bureau of Land Management.

Of primary concern is the amount of land that is being released for oil and gas development. The area in question is critical for wildlife habitat, and oil and gas development would seriously degrade the quality of that wildlife habitat. It would also seriously degrade the overall scenic values which are vital to continued tourist business. Tourism is the only viable long term business that will continue to keep the economy healthy and preserve these lands for future generations to enjoy. The "rape it and leave it" philosophy does not make sense in either the short term or long term time span.

1 Over-grazing is another concern that degrades the land and leads to erosion and take-over by undesirable plants. ORV use likewise causes loss of valuable land resources, and should be limited to existing roads and trails.

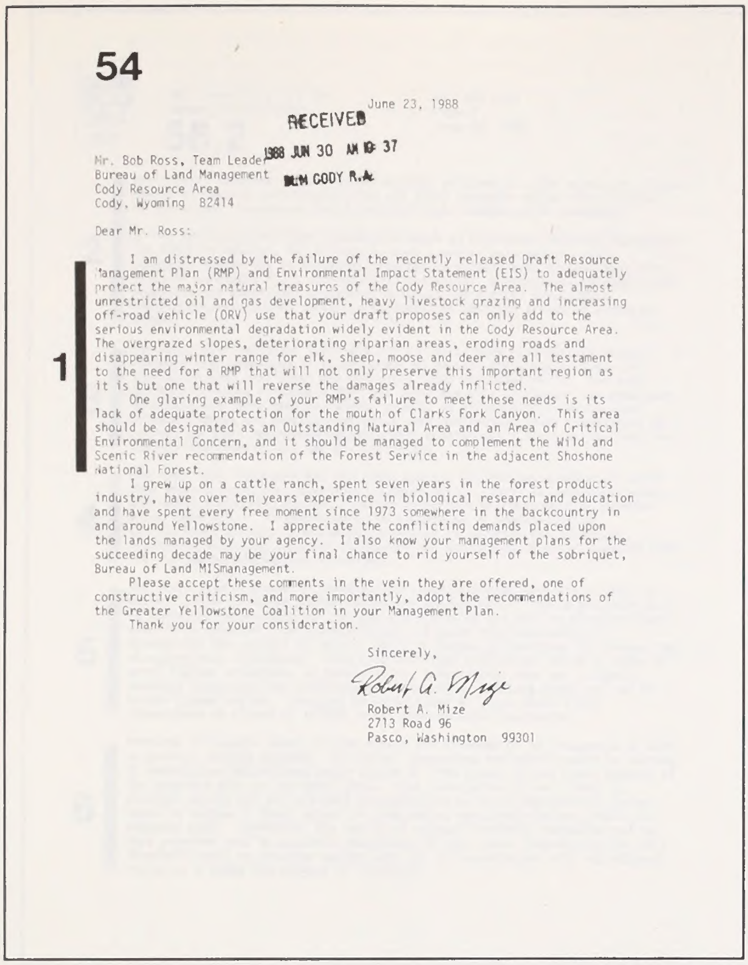
Overall the RMP reflects short term thinking that only favors 'quick money' solutions. I urge you to look at the long term values of wildlife and land conservation.

At the very least, the mouth of the Clarks Fork river must be protected for Wild and Scenic River designation. You cannot ruin an area being considered for protection while it is under such consideration. This area should be designated an Outstanding Natural Area.

Thank you for the opportunity to comment on your plan. I trust (as a U.S. citizen) that you will take my comments seriously.

Pete Bennett

Peter Bennett
14381 Cottonwood Canyon
Bozeman, MT 59715



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June 23, 1988

RECEIVED
1988 JUN 30 AM 10: 37
BLM CODY R.A.

Mr. Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
Cody, Wyoming 82414

Dear Mr. Ross:

1 I am distressed by the failure of the recently released Draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) to adequately protect the major natural treasures of the Cody Resource Area. The almost unrestricted oil and gas development, heavy livestock grazing and increasing off-road vehicle (ORV) use that your draft proposes can only add to the serious environmental degradation widely evident in the Cody Resource Area. The overgrazed slopes, deteriorating riparian areas, eroding roads and disappearing winter range for elk, sheep, moose and deer are all testament to the need for a RMP that will not only preserve this important region as it is but one that will reverse the damages already inflicted.

One glaring example of your RMP's failure to meet these needs is its lack of adequate protection for the mouth of Clarks Fork Canyon. This area should be designated as an Outstanding Natural Area and an Area of Critical Environmental Concern, and it should be managed to complement the Wild and Scenic River recommendation of the Forest Service in the adjacent Shoshone National Forest.

I grew up on a cattle ranch, spent seven years in the forest products industry, have over ten years experience in biological research and education and have spent every free moment since 1973 somewhere in the backcountry in and around Yellowstone. I appreciate the conflicting demands placed upon the lands managed by your agency. I also know your management plans for the succeeding decade may be your final chance to rid yourself of the sobriquet, Bureau of Land MISmanagement.

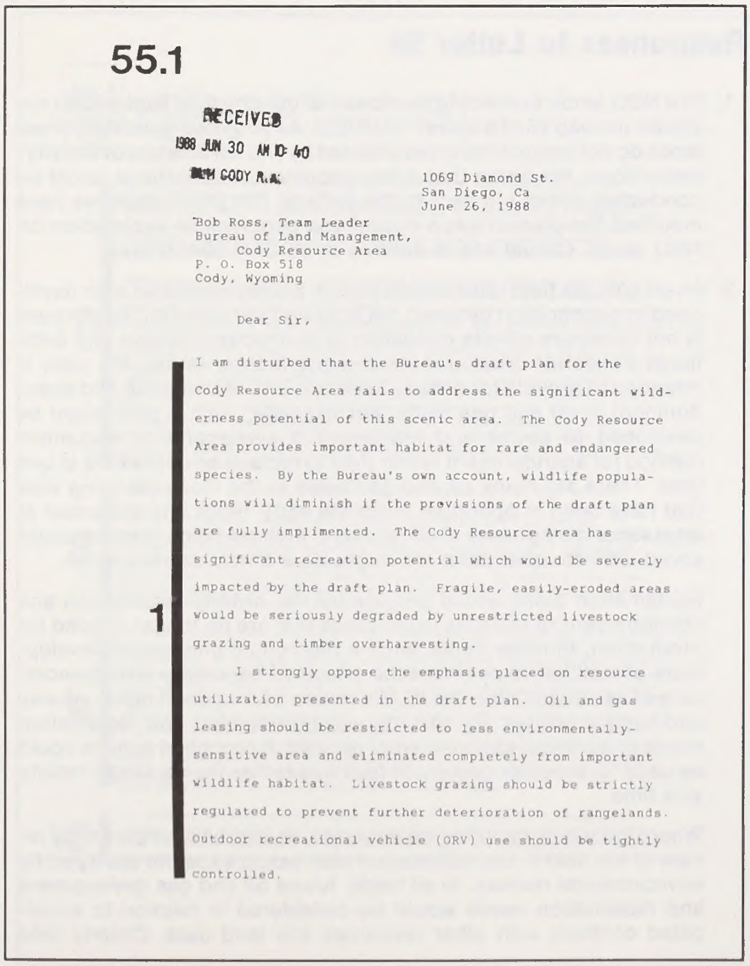
Please accept these comments in the vein they are offered, one of constructive criticism, and more importantly, adopt the recommendations of the Greater Yellowstone Coalition in your Management Plan.

Thank you for your consideration.

Sincerely,

Robert A. Mize

Robert A. Mize
2713 Road 96
Pasco, Washington 99301



55.1

RECEIVED
1988 JUN 30 AM 10: 40
BLM CODY R.A.

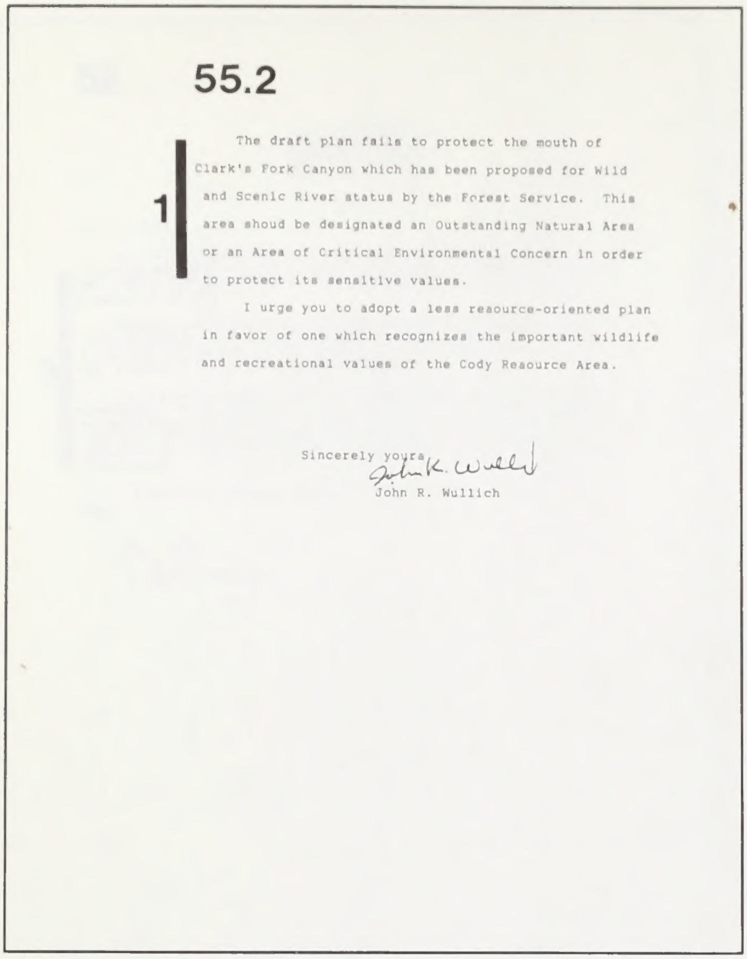
1069 Diamond St.
San Diego, Ca
June 26, 1988

Bob Ross, Team Leader
Bureau of Land Management,
Cody Resource Area
P. O. Box 518
Cody, Wyoming

Dear Sir,

1 I am disturbed that the Bureau's draft plan for the Cody Resource Area fails to address the significant wilderness potential of this scenic area. The Cody Resource Area provides important habitat for rare and endangered species. By the Bureau's own account, wildlife populations will diminish if the provisions of the draft plan are fully implimented. The Cody Resource Area has significant recreation potential which would be severely impacted by the draft plan. Fragile, easily-eroded areas would be seriously degraded by unrestricted livestock grazing and timber overharvesting.

I strongly oppose the emphasis placed on resource utilization presented in the draft plan. Oil and gas leasing should be restricted to less environmentally-sensitive area and eliminated completely from important wildlife habitat. Livestock grazing should be strictly regulated to prevent further deterioration of rangelands. Outdoor recreational vehicle (ORV) use should be tightly controlled.



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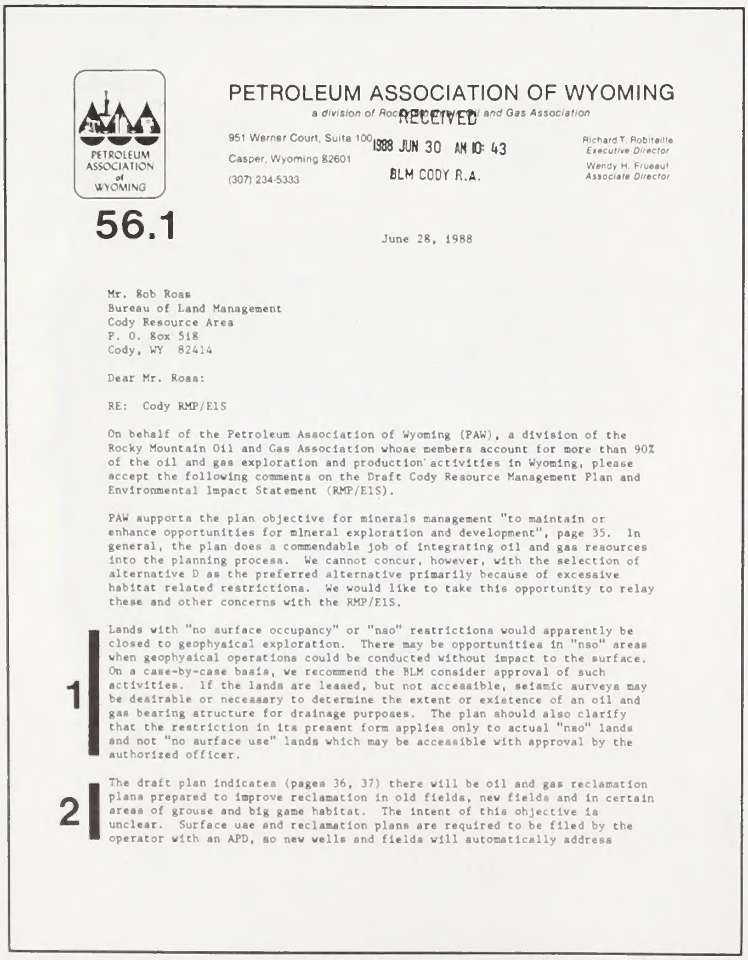
1 The draft plan fails to protect the mouth of Clark's Fork Canyon which has been proposed for Wild and Scenic River status by the Forest Service. This area shoud be designated an Outstanding Natural Area or an Area of Critical Environmental Concern in order to protect its sensitive values.

I urge you to adopt a less resource-oriented plan in favor of one which recognizes the important wildlife and recreational values of the Cody Resource Area.

Sincerely yours,

John R. Wullich

John R. Wullich



PETROLEUM ASSOCIATION OF WYOMING
a division of Rocky Mountain Oil and Gas Association

951 Werner Court, Suite 100
Casper, Wyoming 82601
(307) 234-5333

Richard T. Robitaille
Executive Director
Wendy H. Frueauf
Associate Director

RECEIVED
1988 JUN 30 AM 10: 43
BLM CODY R.A.

56.1

June 28, 1988

Mr. Bob Ross
Bureau of Land Management
Cody Resource Area
P. O. Box 518
Cody, WY 82414

Dear Mr. Ross:

RE: Cody RMP/EIS

On behalf of the Petroleum Association of Wyoming (PAW), a division of the Rocky Mountain Oil and Gas Association whose members account for more than 90% of the oil and gas exploration and production activities in Wyoming, please accept the following comments on the Draft Cody Resource Management Plan and Environmental Impact Statement (RMP/EIS).

PAW supports the plan objective for minerals management "to maintain or enhance opportunities for mineral exploration and development", page 35. In general, the plan does a commendable job of integrating oil and gas resources into the planning process. We cannot concur, however, with the selection of alternative D as the preferred alternative primarily because of excessive habitat related restrictions. We would like to take this opportunity to relay these and other concerns with the RMP/EIS.

1 Lands with "no surface occupancy" or "nso" restrictions would apparently be closed to geophysical exploration. There may be opportunities in "nso" areas when geophysical operations could be conducted without impact to the surface. On a case-by-case basis, we recommend the BLM consider approval of such activities. If the lands are leased, but not accessible, seismic surveys may be desirable or necessary to determine the extent or existence of an oil and gas bearing structure for drainage purposes. The plan should also clarify that the restriction in its present form applies only to actual "nso" lands and not "no surface use" lands which may be accessible with approval by the authorized officer.

2 The draft plan indicates (pages 36, 37) there will be oil and gas reclamation plans prepared to improve reclamation in old fields, new fields and in certain areas of grouse and big game habitat. The intent of this objective is unclear. Surface use and reclamation plans are required to be filed by the operator with an APD, so new wells and fields will automatically address

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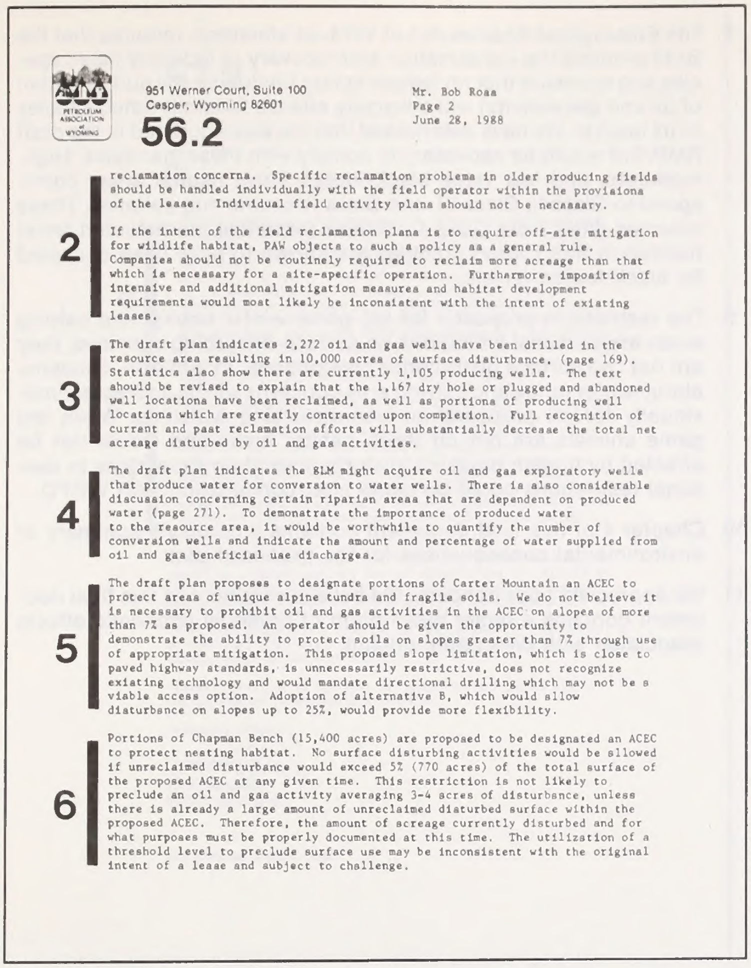
Responses to Letter 56

1. The NSO lands that would be closed to geophysical exploration are shown on map 25 of the draft RMP/EIS. As you have indicated, these lands do not include the areas affected by "no surface use or activity" restrictions. We agree that some geophysical operations could be conducted without impact to the surface. For this reason, we have modified the plan to allow casual use geophysical exploration on NSO lands. Casual use is defined in 43 CFR 3045.0-5(c).

2. An oil and gas field reclamation plan is a comprehensive plan developed in cooperation between the BLM and the operator. Its purpose is not to require off-site mitigation or to impose intensive and additional mitigation measures on existing leases; rather, the plan is intended to provide for orderly development, reclamation and abandonment in oil and gas fields. For example, such a plan might be developed to devise and implement a systematic or sequential method for abandonment rather than to reclaim an entire field at one time. There are many oil and gas fields in the Cody planning area that have been in operation since the early 1900s and are under at least secondary phases of oil recovery. In those fields, some thought about ultimate abandonment might be a timely consideration.

   Reclamation plans would provide for the orderly reclamation and abandonment of facilities in old fields that are no longer needed for production. In other fields, such a plan could emphasize development of facilities to minimize the effects of necessary disturbances, as well as streamlining the BLM's review of proposed rights-of-way and sundry notices. By considering development and reclamation needs in advance, environmental reviews of proposed actions could be used to consider groups of facilities rather than a single facility at a time.

   Where individual facilities are analyzed, an overall environmental review of the field in the reclamation plan would expedite site-specific environmental reviews. In all fields, future oil and gas development and reclamation needs would be considered in relation to anticipated conflicts with other resources and land uses. Orderly field



PETROLEUM ASSOCIATION of WYOMING
951 Werner Court, Suite 100
Casper, Wyoming 82601

Mr. Bob Ross
Page 2
June 28, 1988

56.2

reclamation concerns. Specific reclamation problems in older producing fields should be handled individually with the field operator within the provisions of the lease. Individual field activity plans should not be necessary.

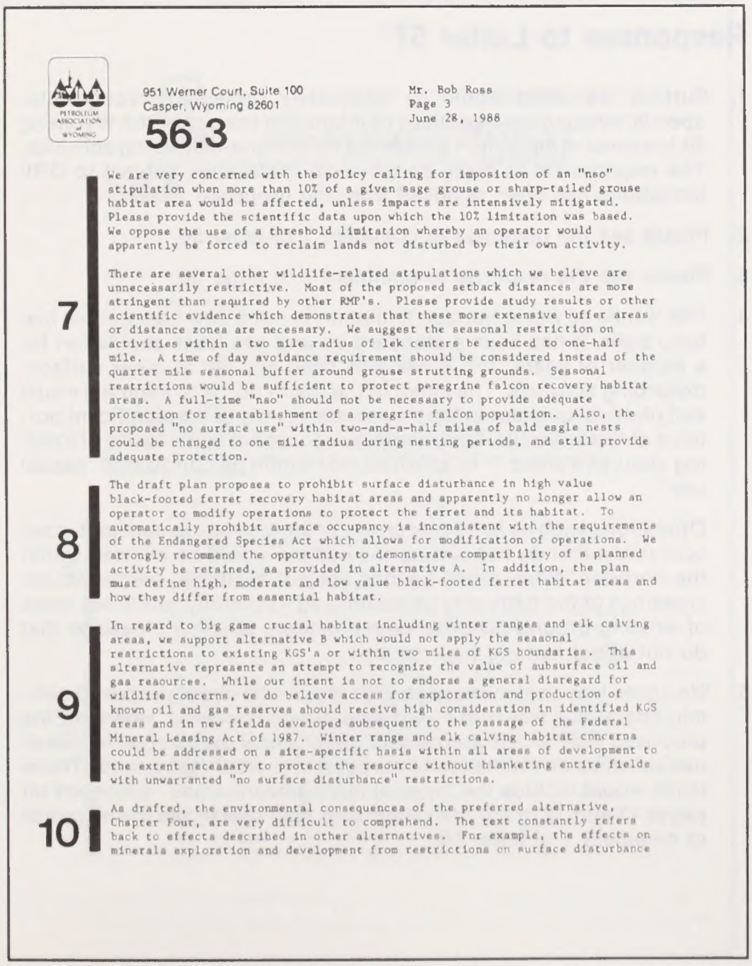
2 If the intent of the field reclamation plans is to require off-site mitigation for wildlife habitat, PAW objects to such a policy as a general rule. Companies should not be routinely required to reclaim more acreage than that which is necessary for a site-specific operation. Furthermore, imposition of intensive and additional mitigation measures and habitat development requirements would most likely be inconsistent with the intent of existing leases.

3 The draft plan indicates 2,272 oil and gas wells have been drilled in the resource area resulting in 10,000 acres of surface disturbance. (page 169). Statistics also show there are currently 1,105 producing wells. The text should be revised to explain that the 1,167 dry hole or plugged and abandoned well locations have been reclaimed, as well as portions of producing well locations which are greatly contracted upon completion. Full recognition of current and past reclamation efforts will substantially decrease the total net acreage disturbed by oil and gas activities.

4 The draft plan indicates the BLM might acquire oil and gas exploratory wells that produce water for conversion to water wells. There is also considerable discussion concerning certain riparian areas that are dependent on produced water (page 271). To demonstrate the importance of produced water to the resource area, it would be worthwhile to quantify the number of conversion wells and indicate the amount and percentage of water supplied from oil and gas beneficial use discharges.

5 The draft plan proposes to designate portions of Carter Mountain an ACEC to protect areas of unique alpine tundra and fragile soils. We do not believe it is necessary to prohibit oil and gas activities in the ACEC on slopes of more than 7% as proposed. An operator should be given the opportunity to demonstrate the ability to protect soils on slopes greater than 7% through use of appropriate mitigation. This proposed slope limitation, which is close to paved highway standards, is unnecessarily restrictive, does not recognize existing technology and would mandate directional drilling which may not be a viable access option. Adoption of alternative B, which would allow disturbance on slopes up to 25%, would provide more flexibility.

6 Portions of Chapman Bench (15,400 acres) are proposed to be designated an ACEC to protect nesting habitat. No surface disturbing activities would be allowed if unreclaimed disturbance would exceed 5% (770 acres) of the total surface of the proposed ACEC at any given time. This restriction is not likely to preclude an oil and gas activity averaging 3-4 acres of disturbance, unless there is already a large amount of unreclaimed disturbed surface within the proposed ACEC. Therefore, the amount of acreage currently disturbed and for what purposes must be properly documented at this time. The utilization of a threshold level to preclude surface use may be inconsistent with the original intent of a lease and subject to challenge.



PETROLEUM ASSOCIATION of WYOMING
951 Werner Court, Suite 100
Casper, Wyoming 82601

Mr. Bob Ross
Page 3
June 28, 1988

56.3

7 We are very concerned with the policy calling for imposition of an "nso" stipulation when more than 10% of a given sage grouse or sharp-tailed grouse habitat area would be affected, unless impacts are intensively mitigated. Please provide the scientific data upon which the 10% limitation was based. We oppose the use of a threshold limitation whereby an operator would apparently be forced to reclaim lands not disturbed by their own activity.

There are several other wildlife-related stipulations which we believe are unnecessarily restrictive. Most of the proposed setback distances are more stringent than required by other RMP's. Please provide study results or other scientific evidence which demonstrates that these more extensive buffer areas or distance zones are necessary. We suggest the seasonal restriction on activities within a two mile radius of lek centers be reduced to one-half mile. A time of day avoidance requirement should be considered instead of the quarter mile seasonal buffer around grouse strutting grounds. Seasonal restrictions would be sufficient to protect peregrine falcon recovery habitat areas. A full-time "nso" should not be necessary to provide adequate protection for reestablishment of a peregrine falcon population. Also, the proposed "no surface use" within two-and-a-half miles of bald eagle nests could be changed to one mile radius during nesting periods, and still provide adequate protection.

8 The draft plan proposes to prohibit surface disturbance in high value black-footed ferret recovery habitat areas and apparently no longer allow an operator to modify operations to protect the ferret and its habitat. To automatically prohibit surface occupancy is inconsistent with the requirements of the Endangered Species Act which allows for modification of operations. We strongly recommend the opportunity to demonstrate compatibility of a planned activity be retained, as provided in alternative A. In addition, the plan must define high, moderate and low value black-footed ferret habitat areas and how they differ from essential habitat.

9 In regard to big game crucial habitat including winter ranges and elk calving areas, we support alternative B which would not apply the seasonal restrictions to existing KGS's or within two miles of KGS boundaries. This alternative represents an attempt to recognize the value of subsurface oil and gas resources. While our intent is not to endorse a general disregard for wildlife concerns, we do believe access for exploration and production of known oil and gas reserves should receive high consideration in identified KGS areas and in new fields developed subsequent to the passage of the Federal Mineral Leasing Act of 1987. Winter range and elk calving habitat concerns could be addressed on a site-specific basis within all areas of development to the extent necessary to protect the resource without blanketing entire fields with unwarranted "no surface disturbance" restrictions.

10 As drafted, the environmental consequences of the preferred alternative, Chapter Four, are very difficult to comprehend. The text constantly refers back to effects described in other alternatives. For example, the effects on minerals exploration and development from restrictions on surface disturbance

development and reclamation would help to avoid many of these conflicts altogether.

Although these goals may sound ambitious, we anticipate that reclamation plans will vary greatly in their level of detail. Individual plans may be prepared primarily by the BLM and may include all the features described above, or they may consist of the BLM's adoption of plans already prepared by oil and gas operators. In all cases, however, the plans will be developed with the concurrence of oil and gas operators.

3. We agree that most of the 10,000 acres of disturbance have been reclaimed. Our purpose in describing the 2,272 wells drilled in the planning area was to discuss the level of past activities. We have included a correction in the "Additions and Corrections for Chapter 3" to remove the reference to surface disturbance.

4. There seems to be some confusion about the term "produced water." As used in the document, "produced water" is water produced with oil from a well. It is usually disposed of by reinjection, discharged to complete containment ponds or, after treatment for removal of oil, discharged to surface waters. "Acquired oil and gas wells that produce water" refers to an abandoned oil and gas well or exploratory well that is developed or converted into a water well. (See "Water Well Conversion Criteria" in appendix I of the draft RMP/EIS.

   Produced water and converted oil and gas wells are separate entities each providing important benefits. As you have indicated, some riparian areas that are dependent on produced water were discussed in the draft document. However, it would be inappropriate to include inventory information of the detail suggested in the RMP/EIS. This information is available in files at the Worland and Cody BLM offices.

5. Please see the response to comment 1 of letter 22.

6. At present, disturbed lands in the Chapman Bench proposed ACEC occupy less than ½ of one percent of the total land surface in the proposed ACEC. None of these disturbances are related to oil and gas exploration and development.

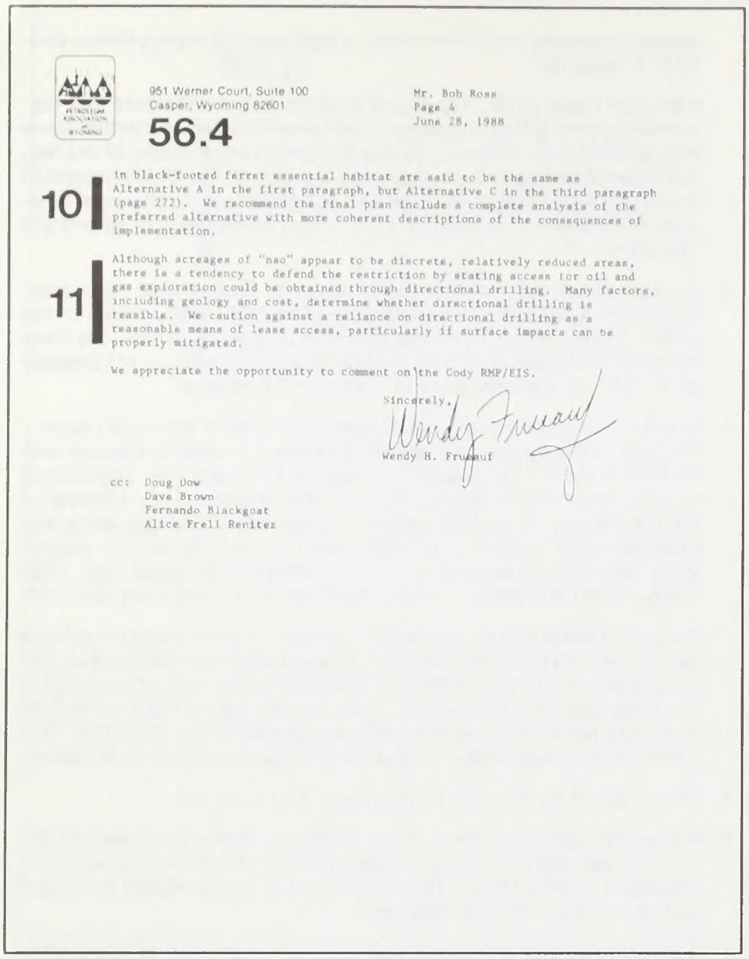
7. Numerous published studies and our own observations in the planning area have shown that the application of seasonal restrictions within 2 miles of the strutting ground are necessary to protect local grouse populations. This restriction has been in place in Wyoming since 1981 without significantly affecting oil and gas development. We do not agree that a ½-mile buffer would be adequate

   The strutting ground serves as a center of yearlong activity for the resident grouse population, and the majority of sage grouse nesting attempts occur within 2 miles of the strutting ground. During development of the proposed RMP, we evaluated the current status of 88 sage grouse leks in the planning area that were known to exist in 1976. Of these, 11 were no longer active. In two of them, exploratory oil and gas wells had been drilled within the 1/4-mile buffer zone proposed for NSO, and in seven leks, more than 10% of the surface within 2 miles of the strutting ground had been disturbed. On the basis of these observations, it appears likely that strutting grounds can be lost if the 10% threshold is exceeded.

   The NSO provision within ¼ mile of sage grouse strutting grounds is necessary because these traditional mating arenas are used each year. Within the ¼ mile radius, the mating arenas frequently move from year to year. A "time of day" avoidance requirement would not afford adequate protection because surface disturbances and many human presence disturbance factors (such as pipeline construction, well drilling, noise, and equipment) could not be removed in the evenings. If the required mating habitat was removed during the day, it could not be restored and made available in the mornings and evenings when the birds arrive to mate.

   The NSO restriction on new leases in peregrine falcon recovery areas affects only 120 acres in areas of high hydrocarbon potential. Given the importance and potential of peregrine falcon recovery in the planning area, this restriction is not excessive.

   The Greater Yellowstone Ecosystem Bald Eagle Working Team recommended a minimum 2½-mile protective buffer around active bald eagle nests until a site-specific management plan could be developed. We defer to their expertise. This restriction would have no significant impact on oil and gas development (see pages 221 and 272 of the draft RMP/EIS).



951 Werner Court, Suite 100
Casper, Wyoming 82601

56.4

Mr. Bob Ross
Page 4
June 28, 1988

10 in black-footed ferret essential habitat are said to be the same as Alternative A in the first paragraph, but Alternative C in the third paragraph (page 272). We recommend the final plan include a complete analysis of the preferred alternative with more coherent descriptions of the consequences of implementation.

11 Although acreages of "nso" appear to be discrete, relatively reduced areas, there is a tendency to defend the restriction by stating access for oil and gas exploration could be obtained through directional drilling. Many factors, including geology and cost, determine whether directional drilling is feasible. We caution against a reliance on directional drilling as a reasonable means of lease access, particularly if surface impacts can be properly mitigated.

We appreciate the opportunity to comment on the Cody RMP/EIS.

Sincerely,

Wendy Fruhauf

Wendy H. Fruhauf

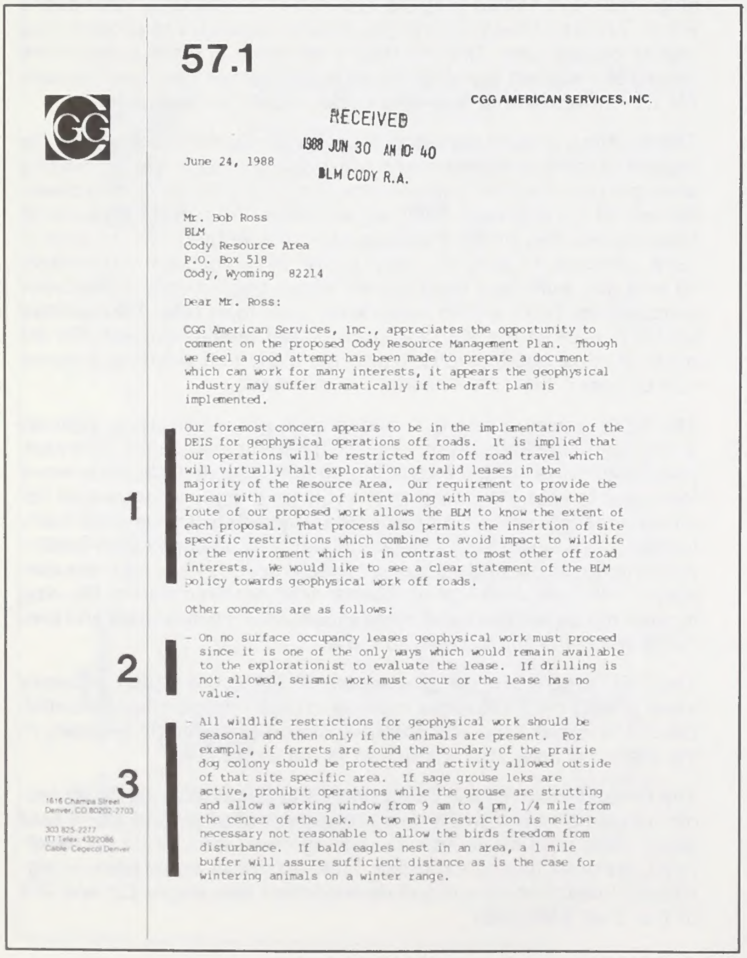
cc: Doug Dow
Dave Brown
Fernando Blackgoat
Alice Frell Benitez

8. The Endangered Species Act of 1973, as amended, requires that the BLM promote the conservation and recovery of federally listed species and to ensure that no federal action (including the authorization of oil and gas activity) will adversely affect a federally listed species or its habitat. We have determined that the steps outlined in the draft RMP/EIS would be necessary to comply with these mandates. High, moderate, and low value black-footed ferret habitat areas correspond to Class II, Class III, and Class IV prairie dog colonies. These colonies differ from Class I colonies (essential black-footed ferret habitat) in that Class I colonies are known to have been occupied by black-footed ferrets.

9. The restrictions proposed for big game winter habitat and calving areas are seasonal limitations on surface-disturbing activities; they are not "no surface disturbance" restrictions. In addition, concerns about winter range and calving area concerns will be addressed individually for all proposed surface-disturbing activities. When big game animals are not on these habitat areas and would not be affected by human presence disturbances, then exceptions to seasonal restrictions could be made after consultation with WGFD.

10. Chapter 4 of this final document contains a complete summary of environmental consequences for the proposed plan.

11. We appreciate your concern. We believe chapter 4 of this final document contains a better description of potential economic effects associated with directional drilling.



57.1

CGG AMERICAN SERVICES, INC.

RECEIVED
1988 JUN 30 AM 10: 40
BLM CODY R.A.

June 24, 1988

Mr. Bob Ross
BLM
Cody Resource Area
P.O. Box 518
Cody, Wyoming 82214

Dear Mr. Ross:

CGG American Services, Inc., appreciates the opportunity to comment on the proposed Cody Resource Management Plan. Though we feel a good attempt has been made to prepare a document which can work for many interests, it appears the geophysical industry may suffer dramatically if the draft plan is implemented.

1 Our foremost concern appears to be in the implementation of the DEIS for geophysical operations off roads. It is implied that our operations will be restricted from off road travel which will virtually halt exploration of valid leases in the majority of the Resource Area. Our requirement to provide the Bureau with a notice of intent along with maps to show the route of our proposed work allows the BLM to know the extent of each proposal. That process also permits the insertion of site specific restrictions which combine to avoid impact to wildlife or the environment which is in contrast to most other off road interests. We would like to see a clear statement of the BLM policy towards geophysical work off roads.

Other concerns are as follows:

2 - On no surface occupancy leases geophysical work must proceed since it is one of the only ways which would remain available to the explorationist to evaluate the lease. If drilling is not allowed, seismic work must occur or the lease has no value.

3 - All wildlife restrictions for geophysical work should be seasonal and then only if the animals are present. For example, if ferrets are found the boundary of the prairie dog colony should be protected and activity allowed outside of that site specific area. If sage grouse leks are active, prohibit operations while the grouse are strutting and allow a working window from 9 am to 4 pm, 1/4 mile from the center of the lek. A two mile restriction is neither necessary not reasonable to allow the birds freedom from disturbance. If bald eagles nest in an area, a 1 mile buffer will assure sufficient distance as is the case for wintering animals on a winter range.

1616 Champa Street
Denver, CO 80202-2703

303 825-2277
ITT Telex: 4322086
Cable: Cegecol Denver

Responses to Letter 57

1. Surface resources would be adequately protected through site-specific evaluations of notices of intent and the use of the Wyoming BLM standard mitigation guidelines for surface-disturbing activities. The requirement to make geophysical exploration subject to ORV limitations has been removed from the proposed RMP.

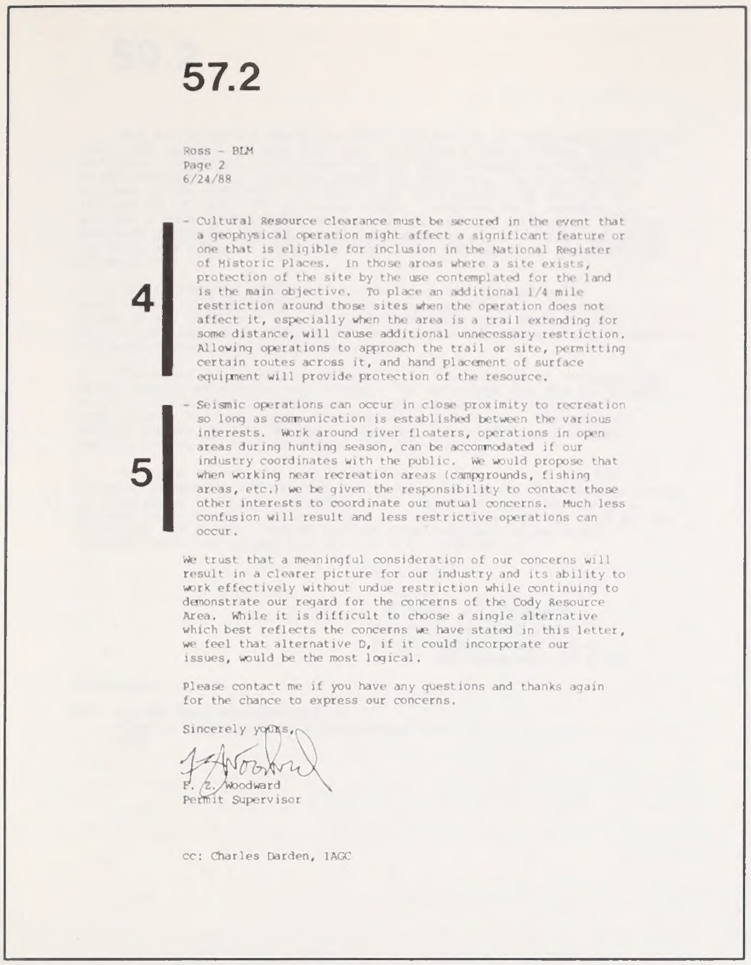
2. Please see the response to comment 1 of letter 56.

3. Please see the response to comment 7 of letter 56.

4. The ¼ mile or visual horizon limitation is not a new concept for historic trails. It has been a standard oil and gas lease stipulation for a number of years, and it has also been applied to other surface-disturbing activities. The intent of the restriction is to maintain visual and physical qualities in the immediate vicinity of the significant portions of historic trails. This restriction would not apply to use of existing disturbed areas or to activities that would be considered "casual use."

   Operations such as hand placement of surface equipment and other operations that do not disturb the surface would be allowed within the corridor. When other options are not available, perpendicular crossings of the trails may be authorized. Generally, sufficient areas of existing ground disturbance are present to allow crossings that do not affect historic trail remains.

5. We agree that communication with the public about proposed seismic operations will help to alleviate public concerns. However, the proposed RMP would still restrict geophysical exploration to casual use activities on recreation lands subject to NSO restrictions. These lands would include the "special management areas" described on pages 11 and 12 of the draft RMP/EIS. Also please see the response to comment 1 of letter 56.



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Ross - BLM
Page 2
6/24/88

4 - Cultural Resource clearance must be secured in the event that a geophysical operation might affect a significant feature or one that is eligible for inclusion in the National Register of Historic Places. In those areas where a site exists, protection of the site by the use contemplated for the land is the main objective. To place an additional 1/4 mile restriction around those sites when the operation does not affect it, especially when the area is a trail extending for some distance, will cause additional unnecessary restriction. Allowing operations to approach the trail or site, permitting certain routes across it, and hand placement of surface equipment will provide protection of the resource.

5 - Seismic operations can occur in close proximity to recreation so long as communication is established between the various interests. Work around river floaters, operations in open areas during hunting season, can be accommodated if our industry coordinates with the public. We would propose that when working near recreation areas (campgrounds, fishing areas, etc.) we be given the responsibility to contact those other interests to coordinate our mutual concerns. Much less confusion will result and less restrictive operations can occur.

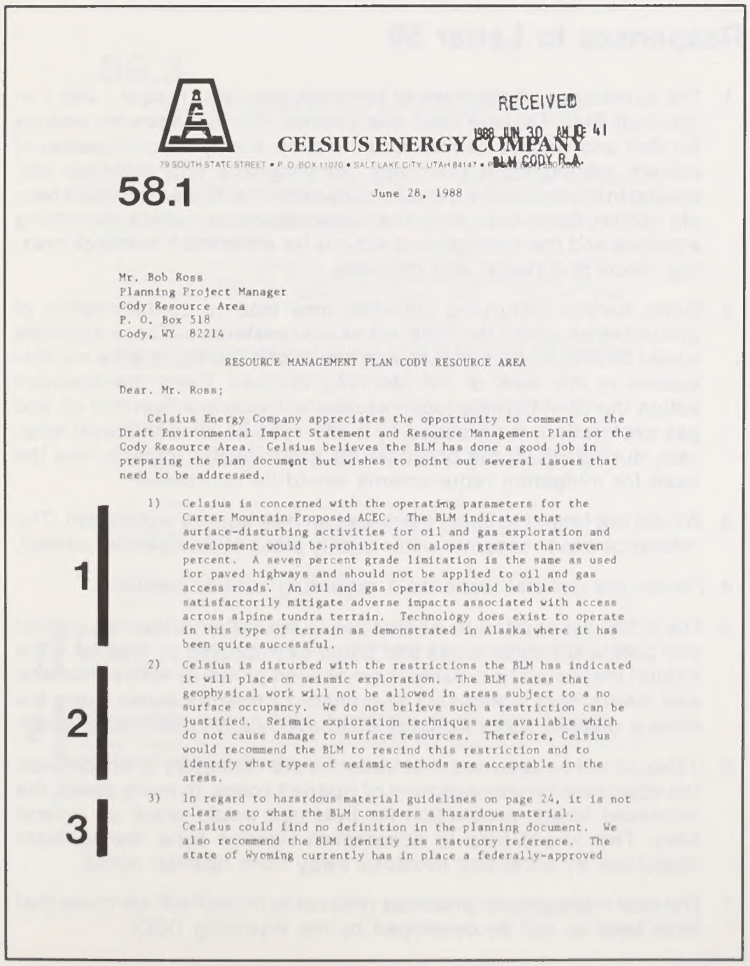
We trust that a meaningful consideration of our concerns will result in a clearer picture for our industry and its ability to work effectively without undue restriction while continuing to demonstrate our regard for the concerns of the Cody Resource Area. While it is difficult to choose a single alternative which best reflects the concerns we have stated in this letter, we feel that alternative D, if it could incorporate our issues, would be the most logical.

Please contact me if you have any questions and thanks again for the chance to express our concerns.

Sincerely yours,

F. Z. Woodward
Permit Supervisor

cc: Charles Darden, IAGC



CELSIUS ENERGY COMPANY
79 SOUTH STATE STREET • P. O. BOX 11070 • SALT LAKE CITY, UTAH 84147 • [illegible]

RECEIVED
1988 JUN 30 AM 10 41
BLM CODY R.A.

58.1

June 28, 1988

Mr. Bob Ross
Planning Project Manager
Cody Resource Area
P. O. Box 518
Cody, WY 82214

RESOURCE MANAGEMENT PLAN CODY RESOURCE AREA

Dear. Mr. Ross;

Celsius Energy Company appreciates the opportunity to comment on the Draft Environmental Impact Statement and Resource Management Plan for the Cody Resource Area. Celsius believes the BLM has done a good job in preparing the plan document but wishes to point out several issues that need to be addressed.

1 1) Celsius is concerned with the operating parameters for the Carter Mountain Proposed ACEC. The BLM indicates that surface-disturbing activities for oil and gas exploration and development would be prohibited on slopes greater than seven percent. A seven percent grade limitation is the same as used for paved highways and should not be applied to oil and gas access roads. An oil and gas operator should be able to satisfactorily mitigate adverse impacts associated with access across alpine tundra terrain. Technology does exist to operate in this type of terrain as demonstrated in Alaska where it has been quite successful.

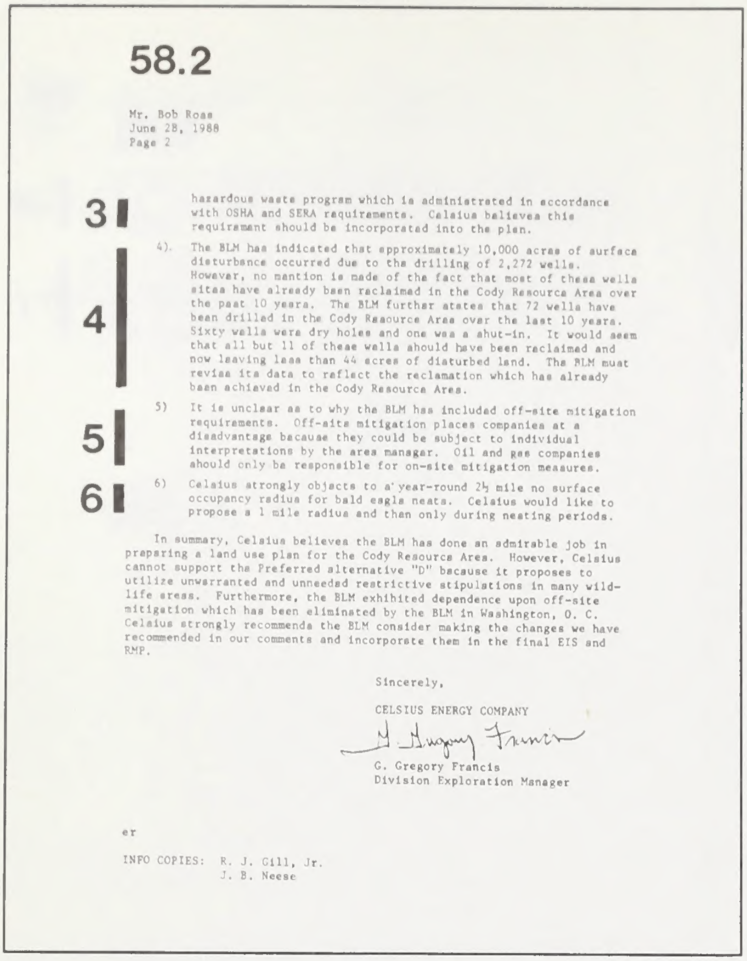
2 2) Celsius is disturbed with the restrictions the BLM has indicated it will place on seismic exploration. The BLM states that geophysical work will not be allowed in areas subject to a no surface occupancy. We do not believe such a restriction can be justified. Seismic exploration techniques are available which do not cause damage to surface resources. Therefore, Celsius would recommend the BLM to rescind this restriction and to identify what types of seismic methods are acceptable in the areas.

3 3) In regard to hazardous material guidelines on page 24, it is not clear as to what the BLM considers a hazardous material. Celsius could find no definition in the planning document. We also recommend the BLM identify its statutory reference. The state of Wyoming currently has in place a federally-approved

Responses to Letter 58

1. Please see the response to comment 1 of letter 22.
2. Please see the response to comment 1 of letter 56.
3. The "Additions and Correction for the Appendixes" contain further discussion concerning hazardous materials.
4. Please see the response to comment 3 of letter 56.
5. The proposed plan suggests that off-site mitigation could be used in sage grouse habitat areas and in the Chapman Bench proposed ACEC if it appeared that certain thresholds would be reached for total unreclaimed surface disturbances. These thresholds would be 10% for sage grouse habitat areas (301 acres within 2 miles of a sage grouse lek) and 5% (770 acres) for the Chapman Bench proposed ACEC.

   Off-site mitigation would not be required unless it would be the only means remaining to meet management objectives for limiting surface disturbance. Management would emphasize early identification of potential conflicts so that appropriate mitigative measures could be implemented before thresholds were reached. So far, it appears that the 10% threshold could be reached in two of 88 sage grouse habitat areas in the planning area, and on the basis of projections of future activities it appears unlikely that the 5% threshold would be reached in the Chapman Bench proposed ACEC. For these reasons, we believe that off-site mitigation would be applied rarely and in limited circumstances.
6. Please see the response to comment 7 of letter 56.



58.2

Mr. Bob Ross
June 28, 1988
Page 2

3 hazardous waste program which is administrated in accordance with OSHA and SERA requirements. Celsius believes this requirement should be incorporated into the plan.

4 4). The BLM has indicated that approximately 10,000 acres of surface disturbance occurred due to the drilling of 2,272 wells. However, no mention is made of the fact that most of these wells sites have already been reclaimed in the Cody Resource Area over the past 10 years. The BLM further states that 72 wells have been drilled in the Cody Resource Area over the last 10 years. Sixty wells were dry holes and one was a shut-in. It would seem that all but 11 of these wells should have been reclaimed and now leaving less than 44 acres of disturbed land. The BLM must revise its data to reflect the reclamation which has already been achieved in the Cody Resource Area.

5 5) It is unclear as to why the BLM has included off-site mitigation requirements. Off-site mitigation places companies at a disadvantage because they could be subject to individual interpretations by the area manager. Oil and gas companies should only be responsible for on-site mitigation measures.

6 6) Celsius strongly objects to a year-round 2½ mile no surface occupancy radius for bald eagle nests. Celsius would like to propose a 1 mile radius and then only during nesting periods.

In summary, Celsius believes the BLM has done an admirable job in preparing a land use plan for the Cody Resource Area. However, Celsius cannot support the Preferred alternative "D" because it proposes to utilize unwarranted and unneeded restrictive stipulations in many wildlife areas. Furthermore, the BLM exhibited dependence upon off-site mitigation which has been eliminated by the BLM in Washington, D. C. Celsius strongly recommends the BLM consider making the changes we have recommended in our comments and incorporate them in the final EIS and RMP.

Sincerely,

CELSIUS ENERGY COMPANY

G. Gregory Francis

G. Gregory Francis
Division Exploration Manager

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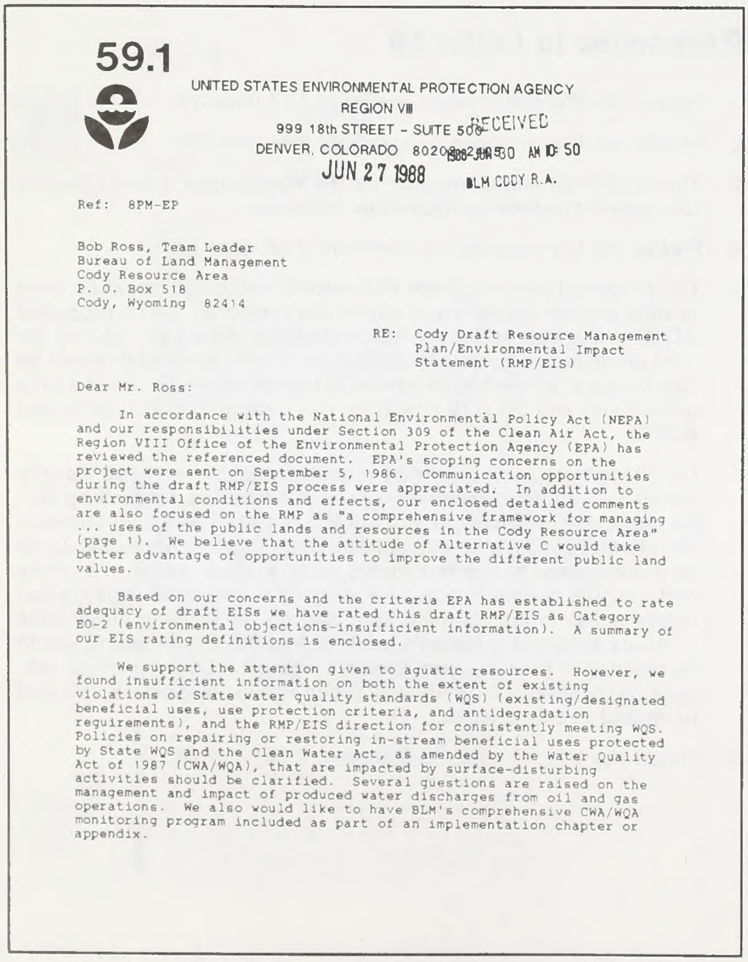
INFO COPIES: R. J. Gill, Jr.
J. B. Neese



59.1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2405

JUN 27 1988

RECEIVED
1988 JUN 30 AM 10: 50
BLM CODY R.A.

Ref: 8PM-EP

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P. O. Box 518
Cody, Wyoming 82414

RE: Cody Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS)

Dear Mr. Ross:

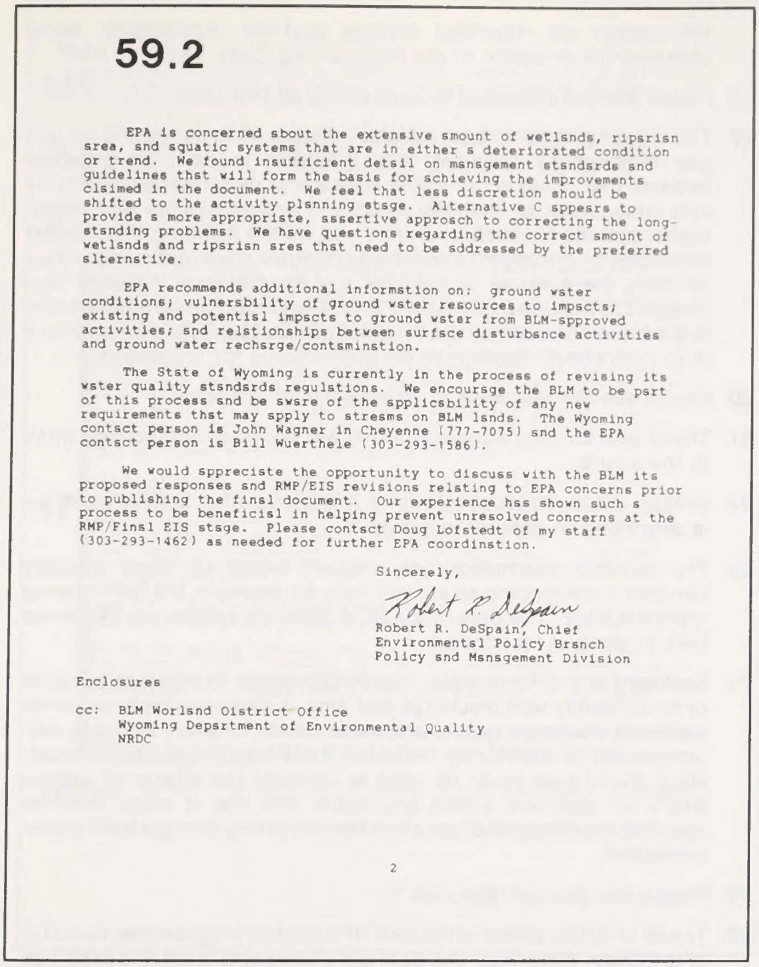
In accordance with the National Environmental Policy Act (NEPA) and our responsibilities under Section 309 of the Clean Air Act, the Region VIII Office of the Environmental Protection Agency (EPA) has reviewed the referenced document. EPA's scoping concerns on the project were sent on September 5, 1986. Communication opportunities during the draft RMP/EIS process were appreciated. In addition to environmental conditions and effects, our enclosed detailed comments are also focused on the RMP as "a comprehensive framework for managing ... uses of the public lands and resources in the Cody Resource Area" (page 1). We believe that the attitude of Alternative C would take better advantage of opportunities to improve the different public land values.

Based on our concerns and the criteria EPA has established to rate adequacy of draft EISs we have rated this draft RMP/EIS as Category EO-2 (environmental objections-insufficient information). A summary of our EIS rating definitions is enclosed.

We support the attention given to aquatic resources. However, we found insufficient information on both the extent of existing violations of State water quality standards (WQS) (existing/designated beneficial uses, use protection criteria, and antidegradation requirements), and the RMP/EIS direction for consistently meeting WQS. Policies on repairing or restoring in-stream beneficial uses protected by State WQS and the Clean Water Act, as amended by the Water Quality Act of 1987 (CWA/WQA), that are impacted by surface-disturbing activities should be clarified. Several questions are raised on the management and impact of produced water discharges from oil and gas operations. We also would like to have BLM's comprehensive CWA/WQA monitoring program included as part of an implementation chapter or appendix.

Responses to Letter 59

1. The summaries of alternatives to which you refer (pages i and 7 in the draft RMP/EIS) are brief and general. The management actions for fish and wildlife habitat would not be simply a continuation of current management practices. All programs and activities discussed in the document include management actions that would benefit habitat. Some such actions are restrictions on surface-disturbing activities and the management actions for watershed, livestock grazing, lands and realty, and minerals.
2. Some surface-disturbing activities may lead to contamination of groundwater, given the right set of circumstances. These activities would be limited both in time and space and therefore were not discussed at this level of the planning process. Every management action the BLM permits (such as reservoir construction and oil and gas exploration) is preceded by a site-specific environmental analysis, during which the potential for groundwater impacts and the need for mitigation requirements would be addressed.
3. We did not intend to imply there was an interagency agreement. The reference was to separate water quality plans of the agencies named.
4. Please see general response 1 regarding activity planning.
5. The 8,300 acres cited in Alternative C are wetland/riparian habitat and potential habitat areas that could be improved or created. (The habitat that could be created is associated primarily with ephemeral and intermittent streams.) The number of riparian zones along the stream reaches listed on page 323 have not yet been determined.
6. It should not be assumed that tradeoffs are necessary to accomplish the objectives for management of riparian zones. In many cases, the increased forage production for livestock would occur on upland sites. This would help to accomplish riparian zone management objectives by attracting livestock away from riparian zones.
7. The best management practices referred to in the RMP are those that have been or will be developed by the Wyoming DEQ.



59.2

EPA is concerned about the extensive amount of wetlands, riparian area, and aquatic systems that are in either a deteriorated condition or trend. We found insufficient detail on management standards and guidelines that will form the basis for achieving the improvements claimed in the document. We feel that less discretion should be shifted to the activity planning stage. Alternative C appears to provide a more appropriate, assertive approach to correcting the long-standing problems. We have questions regarding the correct amount of wetlands and riparian area that need to be addressed by the preferred alternative.

EPA recommends additional information on: ground water conditions; vulnerability of ground water resources to impacts; existing and potential impacts to ground water from BLM-approved activities; and relationships between surface disturbance activities and ground water recharge/contamination.

The State of Wyoming is currently in the process of revising its water quality standards regulations. We encourage the BLM to be part of this process and be aware of the applicability of any new requirements that may apply to streams on BLM lands. The Wyoming contact person is John Wagner in Cheyenne (777-7075) and the EPA contact person is Bill Wuerthele (303-293-1586).

We would appreciate the opportunity to discuss with the BLM its proposed responses and RMP/EIS revisions relating to EPA concerns prior to publishing the final document. Our experience has shown such a process to be beneficial in helping prevent unresolved concerns at the RMP/Final EIS stage. Please contact Doug Lofstedt of my staff (303-293-1462) as needed for further EPA coordination.

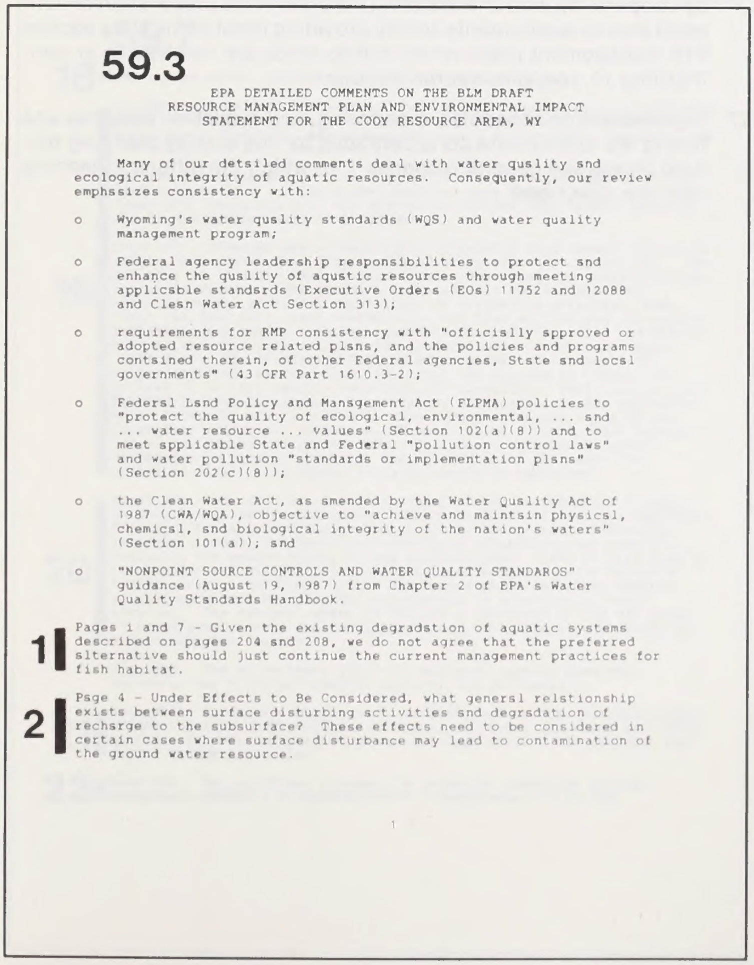
Sincerely,

Robert R. DeSpain

Robert R. DeSpain, Chief
Environmental Policy Branch
Policy and Management Division

Enclosures

cc: BLM Worland District Office
Wyoming Department of Environmental Quality
NRDC



59.3

EPA DETAILED COMMENTS ON THE BLM DRAFT
RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT
STATEMENT FOR THE CODY RESOURCE AREA, WY

Many of our detailed comments deal with water quality and ecological integrity of aquatic resources. Consequently, our review emphasizes consistency with:

- Wyoming's water quality standards (WQS) and water quality management program;
- Federal agency leadership responsibilities to protect and enhance the quality of aquatic resources through meeting applicable standards (Executive Orders (EOs) 11752 and 12088 and Clean Water Act Section 313);
- requirements for RMP consistency with "officially approved or adopted resource related plans, and the policies and programs contained therein, of other Federal agencies, State and local governments" (43 CFR Part 1610.3-2);
- Federal Land Policy and Management Act (FLPMA) policies to "protect the quality of ecological, environmental, ... and ... water resource ... values" (Section 102(a)(8)) and to meet applicable State and Federal "pollution control laws" and water pollution "standards or implementation plans" (Section 202(c)(8));
- the Clean Water Act, as amended by the Water Quality Act of 1987 (CWA/WQA), objective to "achieve and maintain physical, chemical, and biological integrity of the nation's waters" (Section 101(a)); and
- "NONPOINT SOURCE CONTROLS AND WATER QUALITY STANDARDS" guidance (August 19, 1987) from Chapter 2 of EPA's Water Quality Standards Handbook.

1 Pages 1 and 7 - Given the existing degradation of aquatic systems described on pages 204 and 208, we do not agree that the preferred alternative should just continue the current management practices for fish habitat.

2 Page 4 - Under Effects to Be Considered, what general relationship exists between surface disturbing activities and degradation of recharge to the subsurface? These effects need to be considered in certain cases where surface disturbance may lead to contamination of the ground water resource.

8. Please see general response 1.

9. The protection of watershed would be improved (compared to existing management) under the proposed action because the use of ORVs would be limited to designated roads and trails in some watershed priority areas and limited to existing roads and trails elsewhere.

10. The title for map 17 in the draft RMP/EIS was in error; it should have said "Alternatives C and D."

    The 500-foot setbacks apply to all surface water and/or riparian areas. You may assume that all habitat areas shown on map 49 and any wetland/riparian areas not shown would be protected by the setback.

11. The per-acre figure for annual soil loss is an estimated average based on total annual tonnage and total area. The loss figures for individual areas will depend on the kinds and intensity of impacts in each area. It is beyond the scope of this analysis to project actual loss figures per acre for each area. The per-acre loss for a given area may be very high relative to the loss tolerance if, for example, there is excavation, or it may be very low if the effects are primarily due to moderate levels of grazing.

12. We expect some degree of improvement in all "I" and "M" category allotments. Many areas now in poor condition will be improved to fair condition. In addition, some improvement may occur that will not result in a change in ecological condition class; for example, many lands in "low" poor condition would be improved to "high" poor condition, and the same would be true for rangelands in the fair condition class. On rangelands where the class improves from poor to fair, and even where lands change from "low" to "high" in the same ecological condition class, improved vegetative quality also will benefit soil stability, water quality, and wildlife habitat.

    We estimate that the range condition will improve by at least one condition class on approximately 230,000 acres (28% of the part of the planning area that has been inventoried). The existing condition would be at least maintained (that is, no change or a slight improvement) on 25% more. We consider this a relatively significant improvement from the existing vegetative condition and trend.

13. Please see general response 1, in which the tiers of the BLM's planning system are described.

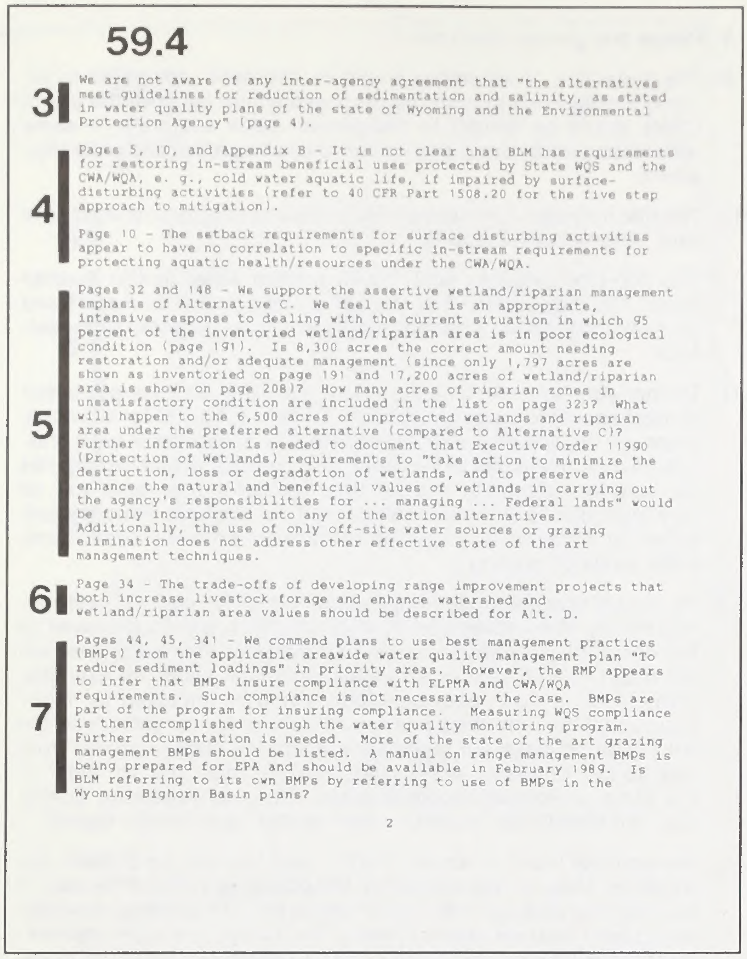
14. The management of fisheries would change from current management under the proposed plan. All of chapter 2 of the draft RMP/EIS contains management implications for fisheries, not just page 49. All programs and activities would be managed to improve aquatic systems. Management actions would include restrictions on surface-disturbing activities, ORV limitations, improvement of wildlife habitat including wetlands, development of activity plans to improve watershed, use of best management practices (BMPs), and local reductions in livestock grazing use, to name a few.

15. The determination of "no adverse effects" on water resources and related resources in the proposed ACECs was made on the basis of anticipated levels of surface-disturbing activities and other land use activities projected for the next 10 to 20 years.

16. Pages 185 through 193 of the draft RMP/EIS are in chapter 3, "The Affected Environment" of the draft. Impacts are discussed in chapter 4, "Environmental Consequences."

17. The BLM does not function as a water data collection agency, although it does occasionally conduct level II water quality monitoring consisting of periodic grab samples. This level of monitoring is insufficient to make judgments against water quality standards for compliance. In Wyoming, anti-degradation requirements pertain only to Class I waters. There are no Class I waters in the planning area. Any degradation of Class II water is within acceptable levels under Wyoming water quality regulations.

    The level of environmental analysis for groundwater resources requested by the EPA is beyond the scope of this RMP. The same is true for documentation of geohydrologic information. Before the BLM would authorize any surface-disturbing activity, site-specific environmental analyses would be conducted in which groundwater and geohydrologic conditions would be considered as appropriate.



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3 We are not aware of any inter-agency agreement that "the alternatives meet guidelines for reduction of sedimentation and salinity, as stated in water quality plans of the state of Wyoming and the Environmental Protection Agency" (page 4).

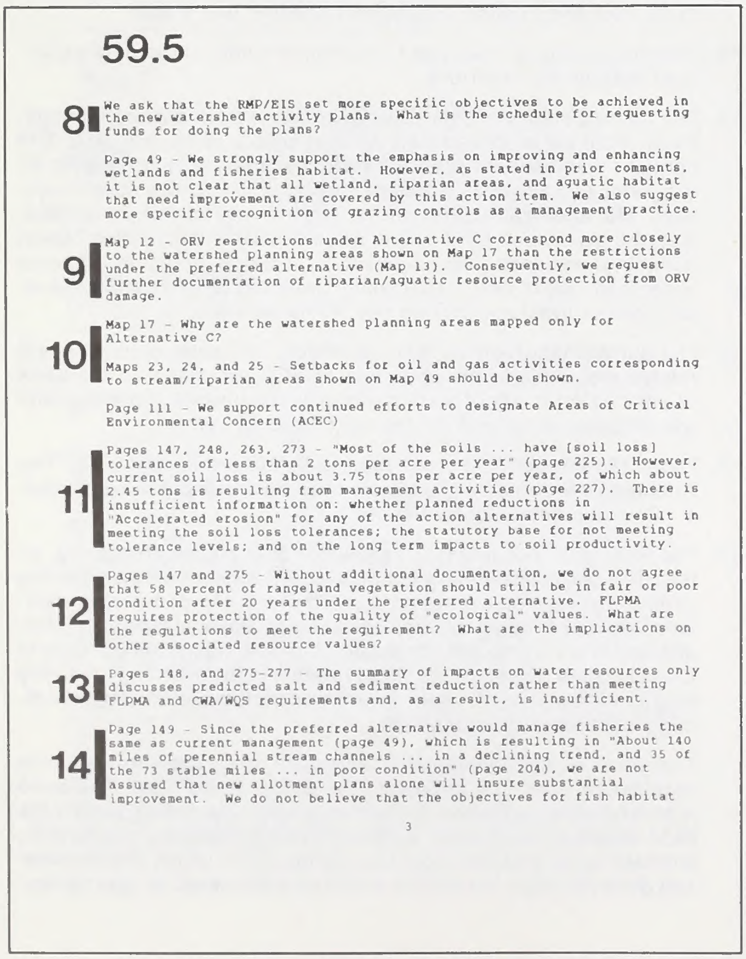
4 Pages 5, 10, and Appendix B - It is not clear that BLM has requirements for restoring in-stream beneficial uses protected by State WQS and the CWA/WQA, e. g., cold water aquatic life, if impaired by surface-disturbing activities (refer to 40 CFR Part 1508.20 for the five step approach to mitigation).

Page 10 - The setback requirements for surface disturbing activities appear to have no correlation to specific in-stream requirements for protecting aquatic health/resources under the CWA/WQA.

5 Pages 32 and 148 - We support the assertive wetland/riparian management emphasis of Alternative C. We feel that it is an appropriate, intensive response to dealing with the current situation in which 95 percent of the inventoried wetland/riparian area is in poor ecological condition (page 191). Is 8,300 acres the correct amount needing restoration and/or adequate management (since only 1,797 acres are shown as inventoried on page 191 and 17,200 acres of wetland/riparian area is shown on page 208)? How many acres of riparian zones in unsatisfactory condition are included in the list on page 323? What will happen to the 6,500 acres of unprotected wetlands and riparian area under the preferred alternative (compared to Alternative C)? Further information is needed to document that Executive Order 11990 (Protection of Wetlands) requirements to "take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for ... managing ... Federal lands" would be fully incorporated into any of the action alternatives. Additionally, the use of only off-site water sources or grazing elimination does not address other effective state of the art management techniques.

6 Page 34 - The trade-offs of developing range improvement projects that both increase livestock forage and enhance watershed and wetland/riparian area values should be described for Alt. D.

7 Pages 44, 45, 341 - We commend plans to use best management practices (BMPs) from the applicable areawide water quality management plan "To reduce sediment loadings" in priority areas. However, the RMP appears to infer that BMPs insure compliance with FLPMA and CWA/WQA requirements. Such compliance is not necessarily the case. BMPs are part of the program for insuring compliance. Measuring WQS compliance is then accomplished through the water quality monitoring program. Further documentation is needed. More of the state of the art grazing management BMPs should be listed. A manual on range management BMPs is being prepared for EPA and should be available in February 1989. Is BLM referring to its own BMPs by referring to use of BMPs in the Wyoming Bighorn Basin plans?



59.5

8 We ask that the RMP/EIS set more specific objectives to be achieved in the new watershed activity plans. What is the schedule for requesting funds for doing the plans?

Page 49 - We strongly support the emphasis on improving and enhancing wetlands and fisheries habitat. However, as stated in prior comments, it is not clear that all wetland, riparian areas, and aquatic habitat that need improvement are covered by this action item. We also suggest more specific recognition of grazing controls as a management practice.

9 Map 12 - ORV restrictions under Alternative C correspond more closely to the watershed planning areas shown on Map 17 than the restrictions under the preferred alternative (Map 13). Consequently, we request further documentation of riparian/aquatic resource protection from ORV damage.

10 Map 17 - Why are the watershed planning areas mapped only for Alternative C?

Maps 23, 24, and 25 - Setbacks for oil and gas activities corresponding to stream/riparian areas shown on Map 49 should be shown.

Page 111 - We support continued efforts to designate Areas of Critical Environmental Concern (ACEC)

11 Pages 147, 248, 263, 273 - "Most of the soils ... have [soil loss] tolerances of less than 2 tons per acre per year" (page 225). However, current soil loss is about 3.75 tons per acre per year, of which about 2.45 tons is resulting from management activities (page 227). There is insufficient information on: whether planned reductions in "Accelerated erosion" for any of the action alternatives will result in meeting the soil loss tolerances; the statutory base for not meeting tolerance levels; and on the long term impacts to soil productivity.

12 Pages 147 and 275 - Without additional documentation, we do not agree that 58 percent of rangeland vegetation should still be in fair or poor condition after 20 years under the preferred alternative. FLPMA requires protection of the quality of "ecological" values. What are the regulations to meet the requirement? What are the implications on other associated resource values?

13 Pages 148, and 275-277 - The summary of impacts on water resources only discusses predicted salt and sediment reduction rather than meeting FLPMA and CWA/WQS requirements and, as a result, is insufficient.

14 Page 149 - Since the preferred alternative would manage fisheries the same as current management (page 49), which is resulting in "About 140 miles of perennial stream channels ... in a declining trend, and 35 of the 73 stable miles ... in poor condition" (page 204), we are not assured that new allotment plans alone will insure substantial improvement. We do not believe that the objectives for fish habitat

Information on degraded aquatic systems is currently being obtained for inclusion in the forthcoming Cody wetlands HMP.

18. Please see the response to comment 2 of this letter.

19. The wording about produced water discharge facilities and oil and gas reclamation practices was intended to describe potential impacts that could occur in the absence of performance standards and mitigations. In fact, standards and mitigations are part of our authorizations for such activities, and we are avoiding the impacts described on the pages to which you referred. It was not our intention to imply there would be violations of the National Pollution Discharge Elimination System (NPDES). The NPDES program is administered and enforced by the Wyoming DEQ. The BLM's involvement is to spot check discharges on public lands for compliance.

20. Please see the response to comment 2 of this letter.

21. Thank you for your suggestion. We will consider contacting FmHA in the future.

22. Greater detail will be contained in AMPs and other activity plans, as is described in general response 1.

23. The detailed information you request would be more properly handled in developing an activity plan, for example, the forthcoming wetlands HMP. The tiers of the BLM planning system are explained fully in general response 1.

24. Sediment is a difficult water quality parameter to measure because of its variability with discharge and time. It is impossible to establish sediment discharge relationships and trends for every drainage recommended for monitoring; therefore, it has been suggested that modeling techniques could be used to estimate the effects of various BMPs on sediment yields and loads and that it could then be assumed that these changes are in fact occurring through BMP implementation.

25. Please see general response 1.

26. The BLM is fully aware of the new NPS control program (section 319) of the Clean Water Act. The BLM will share experience and expertise by cooperating with and assisting the state in the preparation of nonpoint source assessments and by providing input to the state section 319 management plans where public lands are involved in or contributing to nonpoint source pollution.

27. Implementation schedules, monitoring, and available resources and timing are appropriate considerations for the activity planning tier. Also please see general response 1, in which the different planning tiers are described.

59.6

14 improvement are described in enough detail to adequately respond to: the management intent on page 49; the extensive amount of degraded conditions noted on pages 204 and 208; and FLPMA and the CWA/WQA.

15 Pages 152, 153, 156, 157, 158 - Similar statements are made for each of the potential ACECs claiming no adverse impacts on water resources, wetlands, or fish habitat. Yet activities such as livestock grazing and mining would be allowed, depending on the area. How was the determination of "no adverse effects" made?

16 Pages 185-193 - We believe that the discussion of vegetation needs to address much more directly the impacts of livestock grazing.

Pages 198-203 - WQS are listed. However, as requested in our scoping letter, "The RMP/EIS should clearly show where these standards are currently being met or exceeded, are not being met, or where a judgement cannot be made because of insufficient data for each water body or stream segment. The EIS should contain information on critical water quality and habitat requirements of fish and other sensitive species. Anti-degradation segments, if any, should be listed. Incorporating this information on a resource base map would help clarify the correlation of land management direction and activities to actual water body uses to be protected and/or achieved." For example, as already pointed out, there is extensive stream system degradation, yet no mention is made of violations of any cold water aquatic life beneficial uses protected under the CWA/WQA. It is not clear whether permitted, produced water discharges are contributing to existing salinity-caused beneficial use impairments (page 198).

17 The treatment of ground water resources (page 198) is insufficient. Pertinent data for a more complete description are found in two volumes of research done under contract for EPA (see attached copies of cover and reference pages). The description of ground water occurrence, vulnerability and known impacts from human-caused activities on BLM lands needs to be presented in a more thorough manner. The document should also describe in more detail the location and water quality of the existing wells.

Page 207 - What is the geohydrology of Loch Katrine? What portion of the surface water flow recharges the local ground water aquifer?

How do the springs mentioned here integrate into the geohydrology of the planning area? Generally, springs are the surface expression of an artesian or confined ground water aquifer. What water quantity/quality information is available on this important component of the ground water resource system?

Page 208 - We would like to see a map of the degraded aquatic systems included in order to serve as a reference that locates planned improvement actions.

18 Pages 224-227 - The relationship between surface disturbance activities

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59.7

18 and ground water contamination needs to be established.

It appears from page 226 that erosion control requirements for produced water discharge facilities are inadequate. Additional controls, performance standards, and mitigation should be included. Impacts from the erosion on other resources are not clear.

Oil and gas reclamation "practices could eliminate the impacts of the disturbances if ... " the proper measures were taken (page 226, paragraph 5). The discussion implies that needed measures may or may not actually be implemented.

19 Page 229 - Produced water discharges "containing high concentrations of salts, oil, grease, and other pollutants" is mentioned (page 229). The EIS goes on to state that "Produced water may lower the quality of the receiving surface water enough to preclude its use for municipal drinking water, wildlife, recreation, or irrigation purposes", and "Over the long term, this accumulation [of iron sulfate and oil-coated sediments] may render a stream incapable of supporting fish and affect channel characteristics long after produced water discharges cease" (page 232). The discussion implies NPDES permit violations. The situation should be clarified, including the actions to correct the problem if in fact permit violations are occurring. Additionally, the RMP/EIS implies impairment and/or taking of beneficial uses protected under State WQS and the SWA/WQS. The actual situation needs to be thoroughly addresses, including BLM cooperative actions under Section 313 of the CWA/WQS to protect WQS. The impact of produced water discharges on aquatic resources and protection of WQS under the preferred alternative (pages 275-275) should be described.

20 Pages 232, 250, 264, 275 - The treatment of the ground water resource in these sections is inadequate. Impact to local or regional aquifers from activities authorized by BLM should be identified. Historical anecdotal, and/or regulatofially-developed information are probably available for ground waters of the planning area. Lack of this type of information and analysis of potential impacts is a serious omission. Additionally, a reference to the dEQ Ground Water Pollution Control permitting system for disposal wastewaters is necessary in these sections. The document needs to include a reference to the UIC Class II permitting process and requirements for well injection disposal of brines and other wastes.

Page 232 - Use of spreader dikes for sediment control have the potential for creating seasonal wetlands (if protected).

21 page 250 - We suggest BLM contact the USDA Farmers Home Administration (FmHA) regarding FmHA policies on use of easements and other protective measures for wetland protection on land FmHA sells. The concepts may relate to BLM land sales.

22 Page 272 - The preferred alternative lacks the assertive grazing management emphasis of Alternative C in addressing "wildlife.

59.8

22 watershed, and riparian values" (page 256). The description of proposed livestock grazing initiatives and constraints lacks sufficient detail to assure adequate protection of the associated rangeland resources, including the wetland and fisheries improvements claimed on page 276.

23 Page 276 - The RMP/EIS lacks specific standards and guidelines to be used to insure that the improvements claimed for fisheries and wetland/riparian areas will actually occur. Too much discretion is shifted to the activity planning stage. Grazing utilization rates are shown for Alternative C (page 266). What are the preferred alternative utilization rates? Specifically where are improvements to occur? It is not clear that the objectives to have "rapid restoration and improvement of wetland habitat conditions" adequately covers the correct amount of acreage needing attention (refer to our comments for pages 32 and 148). It does not appear that any riparian areas fencing is included on pages 329-330. Goals for improvement of intermittent streams should be included. How many of the intermittent stream miles can be improved to perennial streams with proper management? Apparently, 20 percent of the perennial steam miles with habitat in a deteriorating trend would be improved and the remaining 80 percent would have the deteriorating trend only stopped. We feel that the deterioration trend should be reversed. Compliance with CWA/WQS Section 313 and FLPMA is not clear. We suggest the RMP/EIS target specific locations, types of streams, and existing condition classes for improvement.

24 Page 341 - The sedimentation monitoring discussion only addresses upland sediment causing factors rather than in-stream requirements and WQS compliance/trend monitoring. Consequently, we do not agree that "The data should be sufficient to satisfy appropriate models for determining proper grazing intensity" to meet WQS.

OTHER COMMENTS

25 As addressed in our scoping letter, we request an implementation chapter or appendix (similar to that of the San Juan RMP/EIS, Utah) that includes guidelines for a comprehensive CWA/WQS monitoring program. Such a program would help respond to 43 CFR Part 1610.4-9 requirements that the "proposed plan" establish intervals and standards" that "shall provide for evaluation to determine whether mitigation measures are satisfactory". Due to the technical complexities involved in designing and implementing a monitoring program that adequately links management activities with water quality (including antidegradation requirements and other narrative WQS, such as for aquatic life, as well as numeric WQS) and watershed objectives, the RMP direction should be quire specific. Information such as the following should be included: (1) goals and objectives; (2) types of surveys (ambient, intensive) or assessments to be used; (3) parameters to be monitored; (4) management and environmental indicators (aquatic habitat, sediment delivery); (5) monitoring methodologies; (6) mechanisms for monitoring implementation and adequacy of BMPs; (7) the

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25 person/position responsible for monitoring; and (8) the feedback loop to achieve timely modifications to activities. Refer to the scoping letter for more detail. The RMP direction would then be applied in site-specific detail. A reference stream approach should be evaluated. Ground water monitoring should also be addressed. What is the early warning system to document existing violations or risk of potential violations of the CWA?

Integration of the CWA/WQS monitoring program with the rangeland monitoring program (pages 338-339) should be described. The monitoring direction would also apply to evaluating and reporting adequacy of planned improvement of aquatic systems.

26 The new Clean Water Act amendments were passed in February 1987. A primary concern is the new NPS control program (Section 319). BLM cannot match other Federal (EPA) dollars, but allottees, private land owners, and private organizations can and do plan to participate in the program. Some of this work may be done on BLM lands. How will BLM participate in work on mixed ownership watershed to improve water quality? BLM is asked to provide an assessment of condition of their water bodies to the State as part of the assessment phase of the 319 program. Additionally, the State will be identifying in it's 319 management program the federal programs/projects that it plans to review under Executive Order 12372 for consistency with the State NPS management program (refer to Section 316 of the WQS. BLM involvement in this process should be described.

27 We recommend that the activity plans, resource inventories, etc. needing funding be listed in an implementation chapter or appendix. Linkage of the budgeting process to implementation of activities under the RMP/EIS should be described. We also recommend inclusion of the estimated ine item budgets by alternative (refer to the San Juan RMP/EIS).

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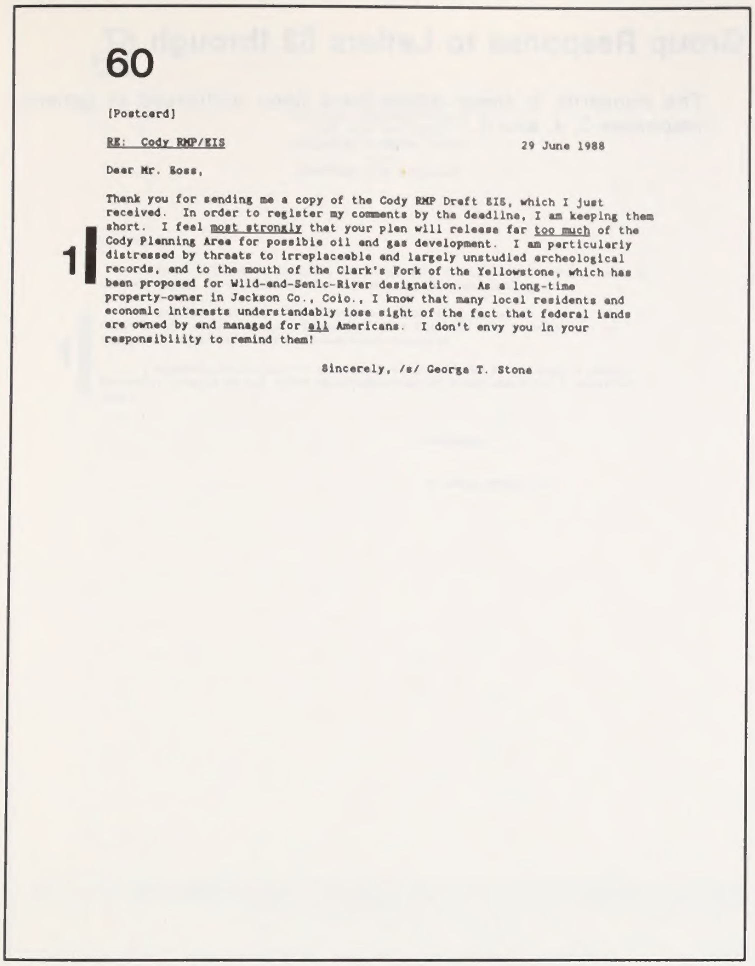

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[Postcard]

RE: Cody RMP/EIS

29 June 1988

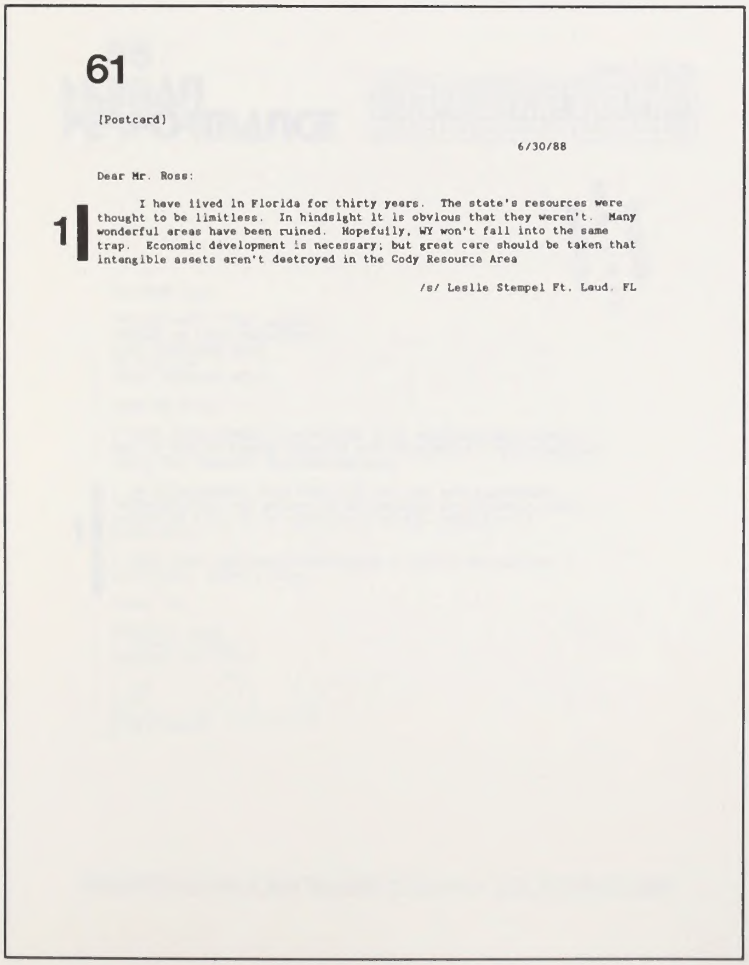
Dear Mr. Ross,

1 Thank you for sending me a copy of the Cody RMP Draft EIS, which I just received. In order to register my comments by the deadline, I am keeping them short. I feel most strongly that your plan will release far too much of the Cody Planning Area for possible oil and gas development. I am particularly distressed by threats to irreplaceable and largely unstudied archeological records, and to the mouth of the Clark's Fork of the Yellowstone, which has been proposed for Wild-and-Scenic-River designation. As a long-time property-owner in Jackson Co., Colo., I know that many local residents and economic interests understandably lose sight of the fact that federal lands are owned by and managed for all Americans. I don't envy you in your responsibility to remind them!

Sincerely, /s/ George T. Stone

Response to Letter 60

1. Thank you for commenting. Please see general responses 3 and 5.



61

[Postcard]

6/30/88

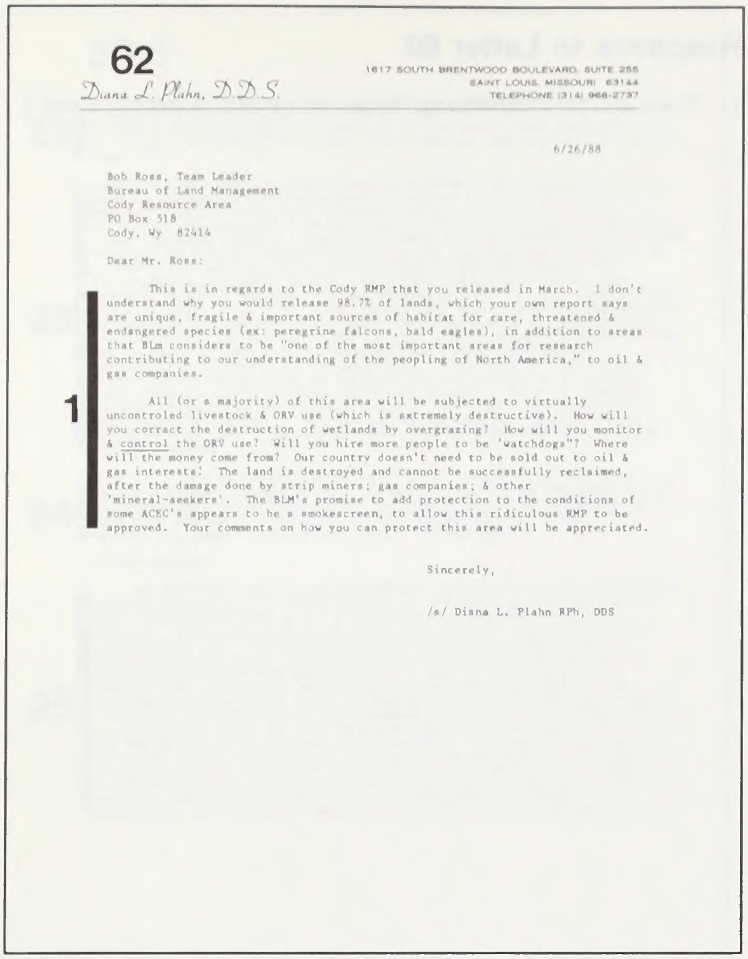
Dear Mr. Ross:

1 I have lived in Florida for thirty years. The state's resources were thought to be limitless. In hindsight it is obvious that they weren't. Many wonderful areas have been ruined. Hopefully, WY won't fall into the same trap. Economic development is necessary; but great care should be taken that intangible assets aren't destroyed in the Cody Resource Area

/s/ Leslie Stempel Ft. Laud. FL

Response to Letter 61

1. Thank you for commenting.



62

Diana L. Plahn, D.D.S.

1617 SOUTH BRENTWOOD BOULEVARD, SUITE 255
SAINT LOUIS, MISSOURI 63144
TELEPHONE (314) 966-2737

6/26/88

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
PO Box 518
Cody, Wy 82414

Dear Mr. Ross:

1 This is in regards to the Cody RMP that you released in March. I don't understand why you would release 98.7% of lands, which your own report says are unique, fragile & important sources of habitat for rare, threatened & endangered species (ex: peregrine falcons, bald eagles), in addition to areas that BLm considers to be "one of the most important areas for research contributing to our understanding of the peopling of North America," to oil & gas companies.

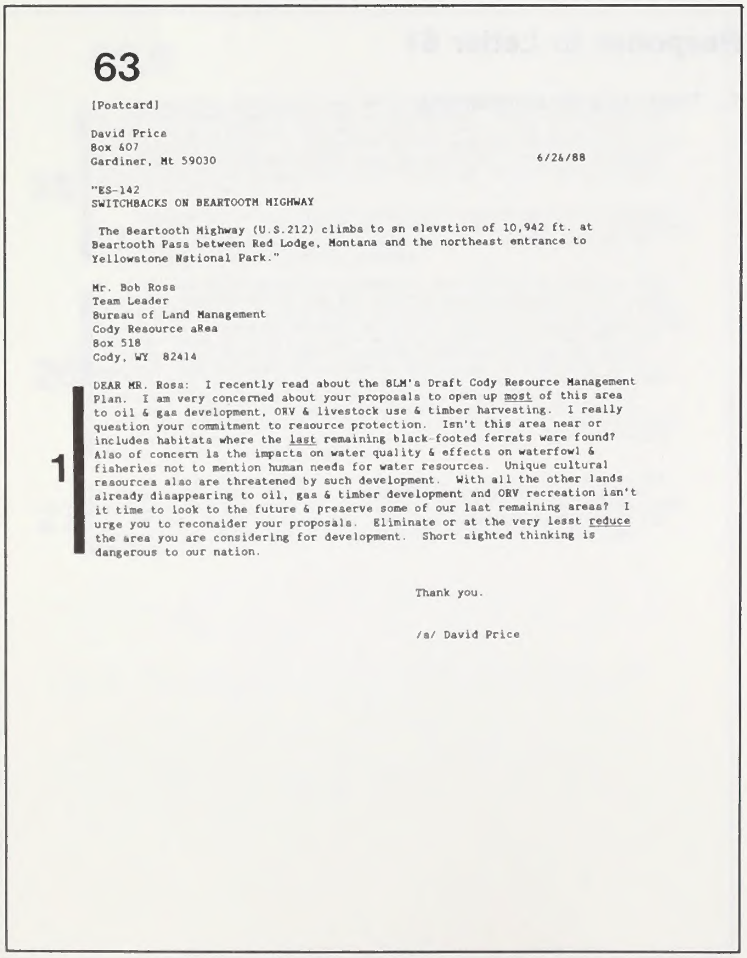
All (or a majority) of this area will be subjected to virtually uncontroled livestock & ORV use (which is extremely destructive). How will you correct the destruction of wetlands by overgrazing? How will you monitor & control the ORV use? Will you hire more people to be 'watchdogs"? Where will the money come from? Our country doesn't need to be sold out to oil & gas interests! The land is destroyed and cannot be successfully reclaimed, after the damage done by strip miners; gas companies; & other 'mineral-seekers'. The BLM's promise to add protection to the conditions of some ACEC's appears to be a smokescreen, to allow this ridiculous RMP to be approved. Your comments on how you can protect this area will be appreciated.

Sincerely,

/s/ Diana L. Plahn RPh, DDS

Group Response to Letters 62 through 67

The concerns in these letters have been addressed in general responses 3, 4, and 5.



63

[Postcard]

David Price
Box 607
Gardiner, Mt 59030

6/26/88

"ES-142
SWITCHBACKS ON BEARTOOTH HIGHWAY

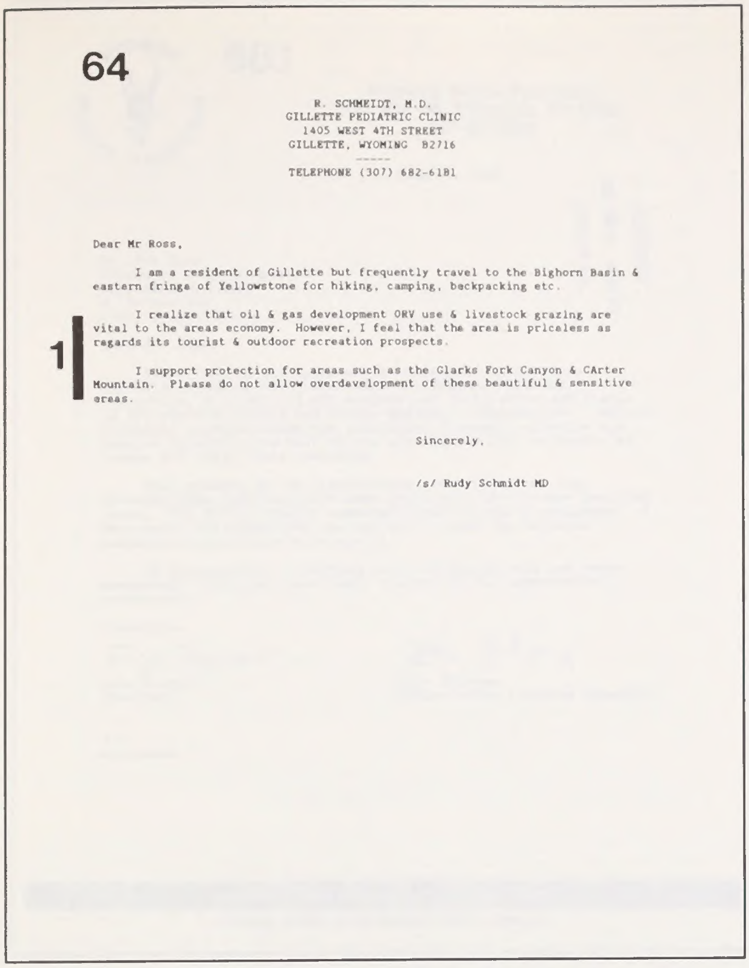
The Beartooth Highway (U.S.212) climbs to an elevation of 10,942 ft. at Beartooth Pass between Red Lodge, Montana and the northeast entrance to Yellowstone National Park."

Mr. Bob Ross
Team Leader
Bureau of Land Management
Cody Resource aRea
Box 518
Cody, WY 82414

1 DEAR MR. Ross: I recently read about the BLM's Draft Cody Resource Management Plan. I am very concerned about your proposals to open up most of this area to oil & gas development, ORV & livestock use & timber harvesting. I really question your commitment to resource protection. Isn't this area near or includes habitats where the last remaining black-footed ferrats were found? Also of concern is the impacts on water quality & effects on waterfowl & fisheries not to mention human needs for water resources. Unique cultural resources also are threatened by such development. With all the other lands already disappearing to oil, gas & timber development and ORV recreation isn't it time to look to the future & preserve some of our last remaining areas? I urge you to reconsider your proposals. Eliminate or at the very least reduce the area you are considering for development. Short sighted thinking is dangerous to our nation.

Thank you.

/s/ David Price



64

R. SCHMEIDT, M.D.
GILLETTE PEDIATRIC CLINIC
1405 WEST 4TH STREET
GILLETTE, WYOMING 82716

TELEPHONE (307) 682-6181

Dear Mr Ross,

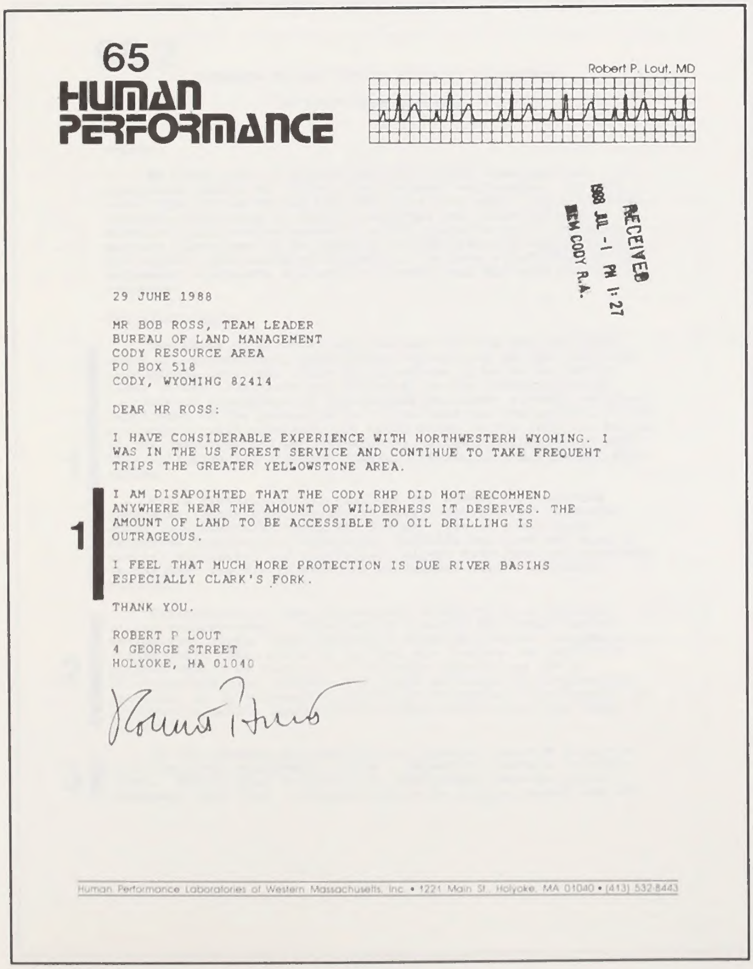
I am a resident of Gillette but frequently travel to the Bighorn Basin & eastern fringe of Yellowstone for hiking, camping, backpacking etc.

1 I realize that oil & gas development ORV use & livestock grazing are vital to the areas economy. However, I feel that the area is priceless as regards its tourist & outdoor recreation prospects.

I support protection for areas such as the Clarks Fork Canyon & CArter Mountain. Please do not allow overdevelopment of these beautiful & sensitive areas.

Sincerely,

/s/ Rudy Schmidt MD



65

HUMAN
PERFORMANCE

Robert P. Lout, MD

RECEIVED
1988 JUL -1 PM 1:27
BLM CODY R.A.

29 JUHE 1988

MR BOB ROSS, TEAM LEADER
BUREAU OF LAND MANAGEMENT
CODY RESOURCE AREA
PO BOX 518
CODY, WYOMIHG 82414

DEAR HR ROSS:

I HAVE COHSIDERABLE EXPERIENCE WITH HORTHWESTERH WYOHING. I WAS IN THE US FOREST SERVICE AND CONTIHUE TO TAKE FREQUEHT TRIPS THE GREATER YELLOWSTONE AREA.

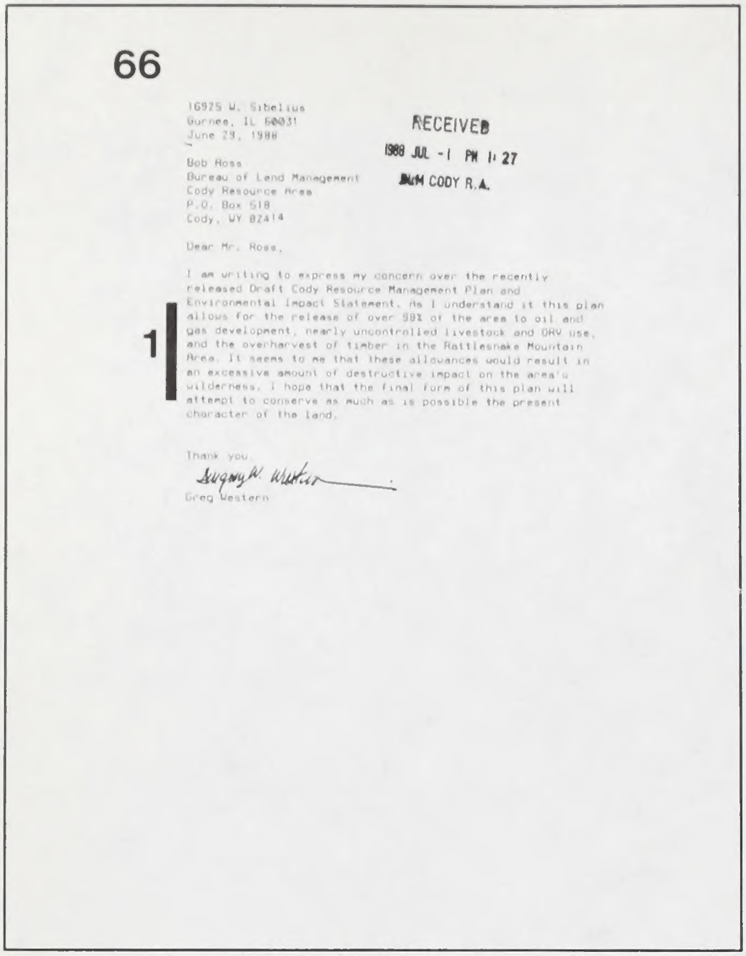
1 I AM DISAPOIHTED THAT THE CODY RHP DID HOT RECOMHEND ANYWHERE HEAR THE AHOUNT OF WILDERHESS IT DESERVES. THE AMOUNT OF LAHD TO BE ACCESSIBLE TO OIL DRILLIHG IS OUTRAGEOUS.

I FEEL THAT MUCH HORE PROTECTION IS DUE RIVER BASIHS ESPECIALLY CLARK'S FORK.

THANK YOU.

ROBERT P LOUT
4 GEORGE STREET
HOLYOKE, HA 01040

Human Performance Laboratories of Western Massachusetts, Inc • 1221 Main St., Holyoke, MA 01040 • (413) 532-8443



66

16925 W. Sibelius
Gurnee, IL 60031
June 29, 1988

RECEIVED
1988 JUL -1 PM 1:27
BLM CODY R.A.

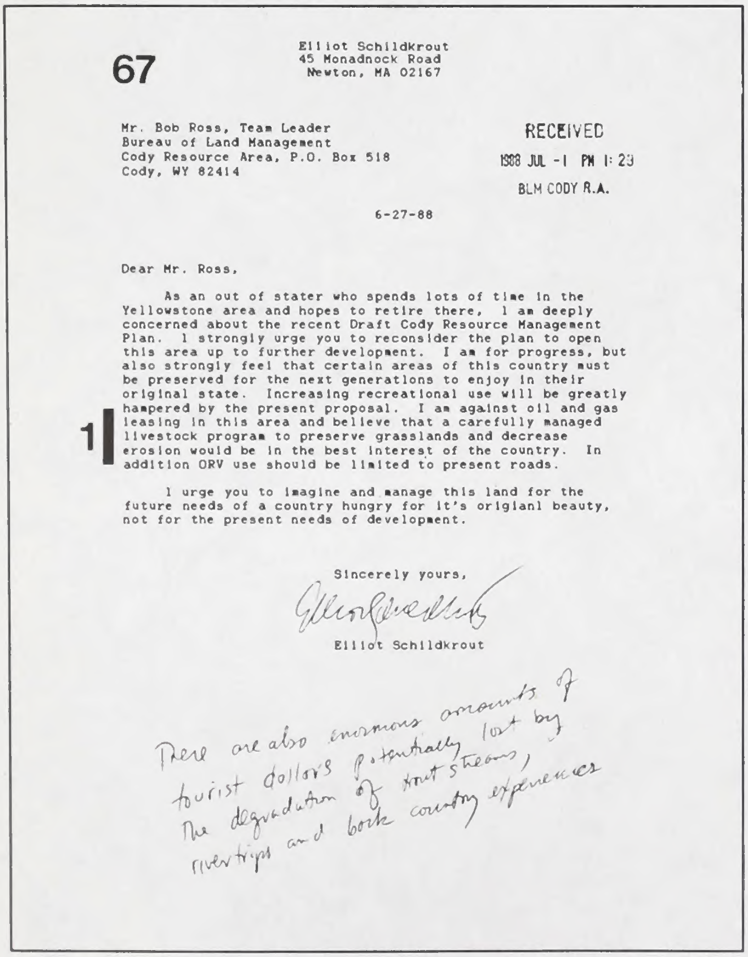
Bob Ross
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

Dear Mr. Ross,

1 I am writing to express my concern over the recently released Draft Cody Resource Management Plan and Environmental Impact Statement. As I understand it this plan allows for the release of over 90% of the area to oil and gas development, nearly uncontrolled livestock and ORV use, and the overharvest of timber in the Rattlesnake Mountain Area. It seems to me that these allowances would result in an excessive amount of destructive impact on the area's wilderness. I hope that the final form of this plan will attempt to conserve as much as is possible the present character of the land.

Thank you.

Greg Western



67

Elliot Schildkrout
45 Monadnock Road
Newton, MA 02167

Mr. Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area, P.O. Box 518
Cody, WY 82414

RECEIVED
1988 JUL -1 PM 1:29
BLM CODY R.A.

6-27-88

Dear Mr. Ross,

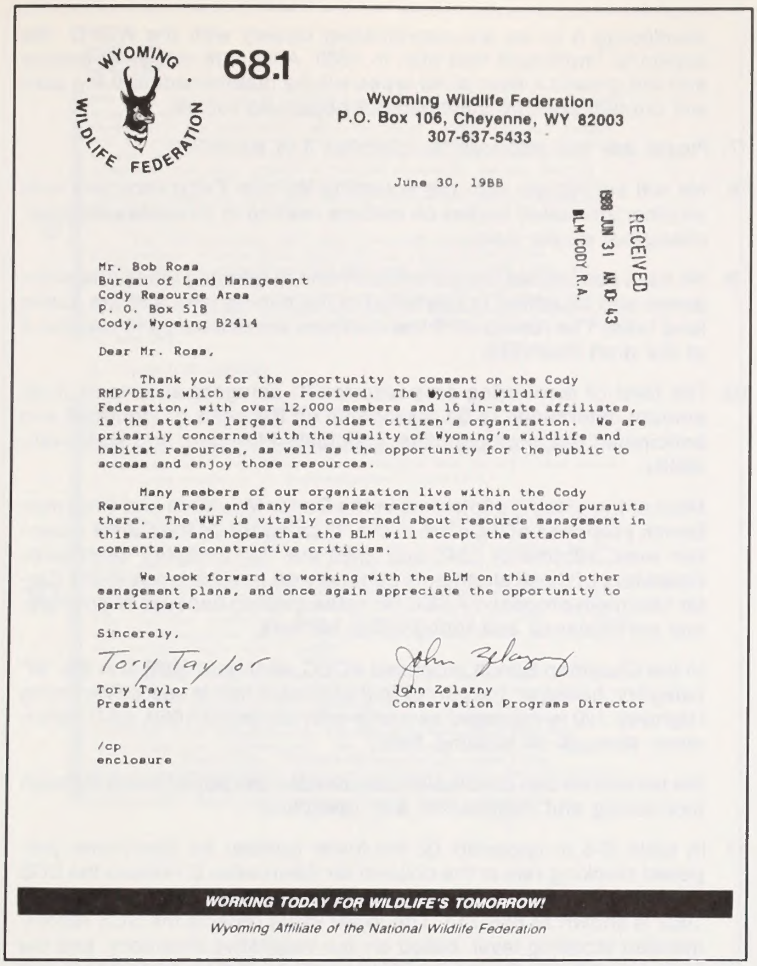
As an out of stater who spends lots of time in the Yellowstone area and hopes to retire there, I am deeply concerned about the recent Draft Cody Resource Management Plan. I strongly urge you to reconsider the plan to open this area up to further development. I am for progress, but also strongly feel that certain areas of this country must be preserved for the next generations to enjoy in their original state. Increasing recreational use will be greatly hampered by the present proposal. 1 I am against oil and gas leasing in this area and believe that a carefully managed livestock program to preserve grasslands and decrease erosion would be in the best interest of the country. In addition ORV use should be limited to present roads.

I urge you to imagine and manage this land for the future needs of a country hungry for it's origianl beauty, not for the present needs of development.

Sincerely yours,

Elliot Schildkrout

There are also enormous amounts of tourist dollars potentially lost by the degradation of trout streams, river trips and back country experiences



68.1

Wyoming Wildlife Federation
P.O. Box 106, Cheyenne, WY 82003
307-637-5433

June 30, 1988

RECEIVED
1988 JUN 31 AM 10 43
BLM CODY R.A.

Mr. Bob Ross
Bureau of Land Management
Cody Resource Area
P. O. Box 518
Cody, Wyoming 82414

Dear Mr. Ross,

Thank you for the opportunity to comment on the Cody RMP/DEIS, which we have received. The Wyoming Wildlife Federation, with over 12,000 members and 16 in-state affiliates, is the state's largest and oldest citizen's organization. We are primarily concerned with the quality of Wyoming's wildlife and habitat resources, as well as the opportunity for the public to access and enjoy those resources.

Many members of our organization live within the Cody Resource Area, and many more seek recreation and outdoor pursuits there. The WWF is vitally concerned about resource management in this area, and hopes that the BLM will accept the attached comments as constructive criticism.

We look forward to working with the BLM on this and other management plans, and once again appreciate the opportunity to participate.

Sincerely,

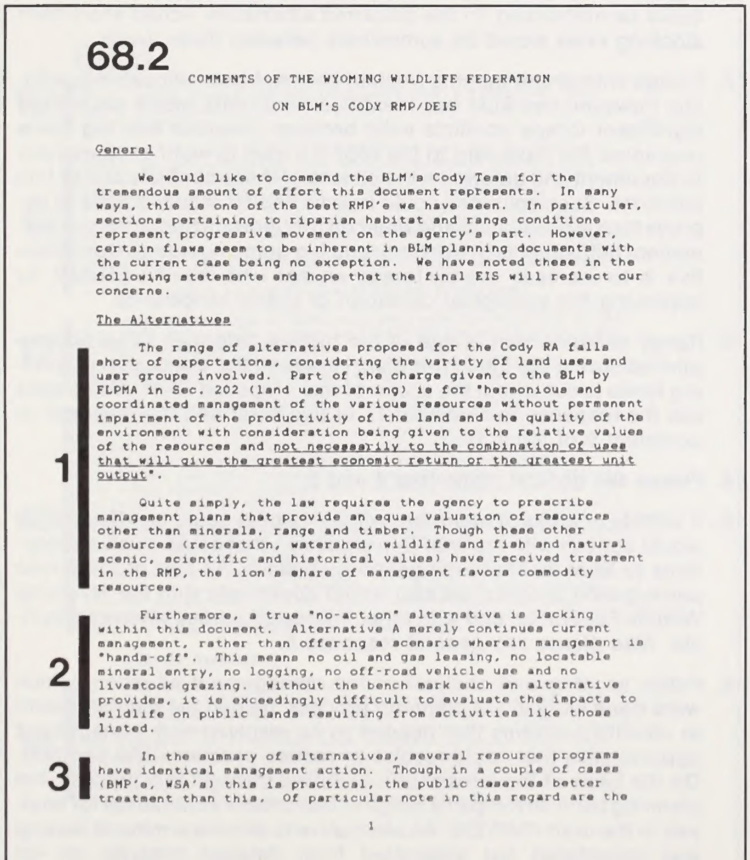
Tory Taylor
Tory Taylor
President

John Zelazny
John Zelazny
Conservation Programs Director

/cp
enclosure

WORKING TODAY FOR WILDLIFE'S TOMORROW!

Wyoming Affiliate of the National Wildlife Federation



68.2

COMMENTS OF THE WYOMING WILDLIFE FEDERATION

ON BLM'S CODY RMP/DEIS

General

We would like to commend the BLM's Cody Team for the tremendous amount of effort this document represents. In many ways, this is one of the best RMP's we have seen. In particular, sections pertaining to riparian habitat and range conditions represent progressive movement on the agency's part. However, certain flaws seem to be inherent in BLM planning documents with the current case being no exception. We have noted these in the following statements and hope that the final EIS will reflect our concerns.

The Alternatives

1 The range of alternatives proposed for the Cody RA falls short of expectations, considering the variety of land uses and user groups involved. Part of the charge given to the BLM by FLPMA in Sec. 202 (land use planning) is for "harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output".

Quite simply, the law requires the agency to prescribe management plans that provide an equal valuation of resources other than minerals, range and timber. Though these other resources (recreation, watershed, wildlife and fish and natural scenic, scientific and historical values) have received treatment in the RMP, the lion's share of management favors commodity resources.

2 Furthermore, a true "no-action" alternative is lacking within this document. Alternative A merely continues current management, rather than offering a scenario wherein management is "hands-off". This means no oil and gas leasing, no locatable mineral entry, no logging, no off-road vehicle use and no livestock grazing. Without the bench mark such an alternative provides, it is exceedingly difficult to evaluate the impacts to wildlife on public lands resulting from activities like those listed.

3 In the summary of alternatives, several resource programs have identical management action. Though in a couple of cases (BMP's, WSA's) this is practical, the public deserves better treatment than this. Of particular note in this regard are the

1

Responses to Letter 68

1. Please see the response to comment 2 of letter 4 and general response 5.

2. The CEQ wrote a memorandum to "federal, state, and local officials and other persons involved in the NEPA process" on March 16, 1981, on the subject of "Questions and Answers about the NEPA Regulations." In that memorandum it is pointed out that there are "two distinct interpretations" of what a "no action" alternative should be. The CEQ memo says

   > The first situation might involve an action such as updating a land management plan where ongoing programs initiated under existing legislation and regulations will continue, even as new plans are developed. In these cases "no action" is "no change" from current management direction or level of management intensity. To construct an alternative that is based on no management at all would be a useless academic exercise. Therefore, the "no action" alternative may be thought of in terms of continuing with the present course of action until that action is changed.

   This is the interpretation of the "no action" alternative that is used in BLM planning documents. The CEQ memorandum goes on to say that another interpretation of the "no action" alternative is possible "in instances involving federal decisions on proposals for projects . . ." when "no action" would mean "the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative to go forward."

   While NEPA requires *consideration* of a range of alternatives, it also requires that the alternatives be reasonable. The suggestions you offered were considered during development of the draft RMP/EIS and were determined to be unrealistic and unreasonable.

3. We believe it is appropriate for the RMP/EIS to contain some elements of management that are common to all alternatives. For example, the management of hazardous materials and wastes is defined by laws, regulations, and policy with which the RMP/EIS must be consistent. We know of no reasonable alternatives to the proposed management of hazardous materials and wastes in the RMP/EIS. Similarly, when the allotment categorization criteria (page 315 of the draft RMP/EIS) are considered there would be very little justification for modifying the present management of "M" and "C" category grazing allotments.

   The draft RMP/EIS does contain alternatives for forest management, access, locatable minerals, and off-road vehicles. Please see pages 22, 38, 39, 40, 41, and 42 in the draft RMP/EIS.

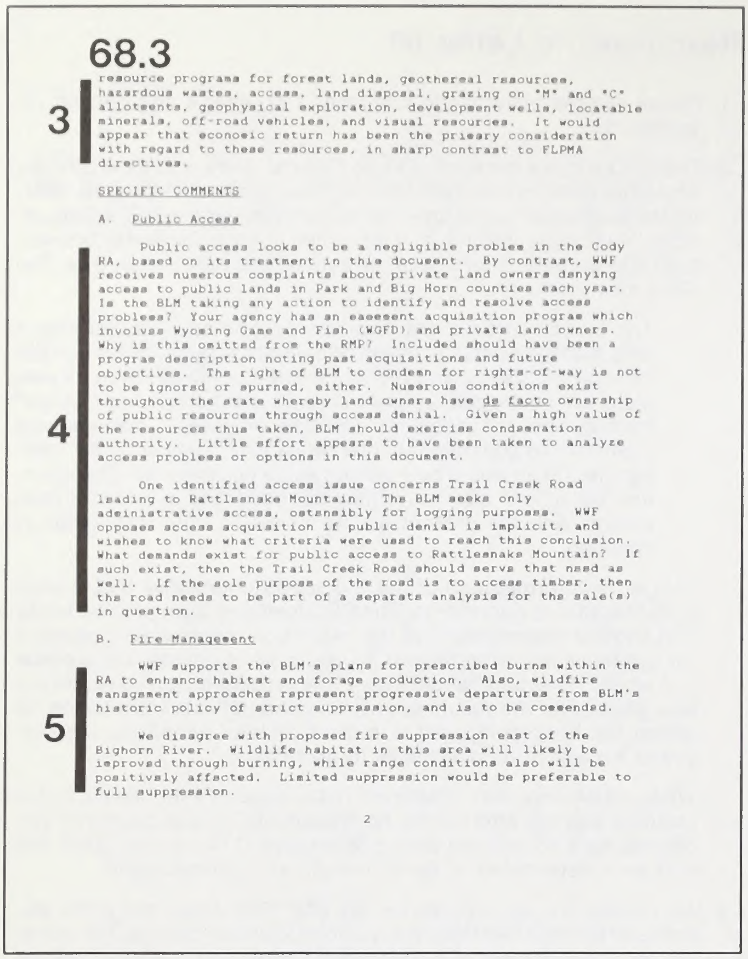
4. Inventory data on acquired access routes is on file in the Cody Resource Area and Worland District offices. It is beyond the scope of this document to identify specific tracts or access routes that have been acquired in the past or that we would like to acquire. This is a function of detailed site-specific activity level planning that follows the RMP.

   Access on the Trail Creek Road is needed only for BLM administrative purposes. The land in this area is predominantly private, and access for the public is not justified.

   Public access to the lands on Rattlesnake Mountain will continue to be maintained as it now exists. We will continue to pursue such things as land exchanges that would allow improved public access to these lands.

5. The criteria used to identify fire suppression areas include consideration of values at risk, suppression difficulty, and the safety of firefighting resources. The area east of the Bighorn River was identified for full suppression because of the mixed ownership of the land (values at risk) and because the fuels are resistant to suppression (suppression difficulty and safety). Full suppression of wildfires in this area would not preclude the use of prescribed burning to improve range and wildlife habitats.

6. We do not propose to harvest all the remaining tree cover on Rattlesnake Mountain. We are in the process of revising the present management plan for that area. The revised plan will be known as the Rattlesnake Mountain Forest/Habitat Management Plan, and in



68.3

3 resource programs for forest lands, geothermal resources, hazardous wastes, access, land disposal, grazing on "M" and "C" allotments, geophysical exploration, development wells, locatable minerals, off-road vehicles, and visual resources. It would appear that economic return has been the primary consideration with regard to these resources, in sharp contrast to FLPMA directives.

SPECIFIC COMMENTS

A. Public Access

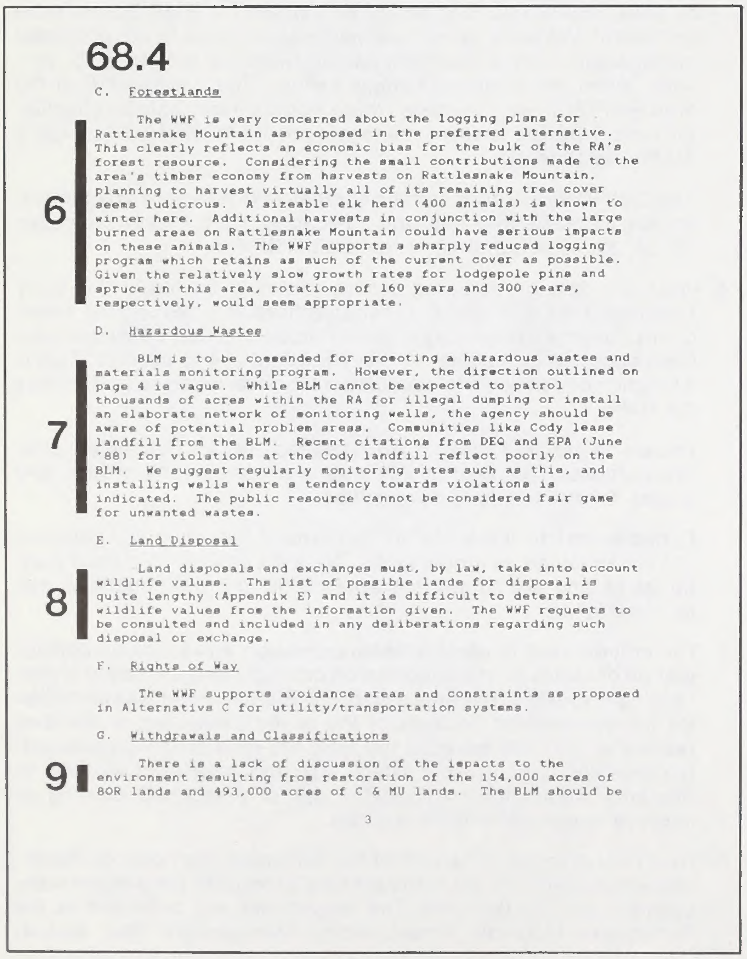
4 Public access looks to be a negligible problem in the Cody RA, based on its treatment in this document. By contrast, WWF receives numerous complaints about private land owners denying access to public lands in Park and Big Horn counties each year. Is the BLM taking any action to identify and resolve access problems? Your agency has an easement acquisition program which involves Wyoming Game and Fish (WGFD) and private land owners. Why is this omitted from the RMP? Included should have been a program description noting past acquisitions and future objectives. The right of BLM to condemn for rights-of-way is not to be ignored or spurned, either. Numerous conditions exist throughout the state whereby land owners have *de facto* ownership of public resources through access denial. Given a high value of the resources thus taken, BLM should exercise condemnation authority. Little effort appears to have been taken to analyze access problems or options in this document.

One identified access issue concerns Trail Creek Road leading to Rattlesnake Mountain. The BLM seeks only administrative access, ostensibly for logging purposes. WWF opposes access acquisition if public denial is implicit, and wishes to know what criteria were used to reach this conclusion. What demands exist for public access to Rattlesnake Mountain? If such exist, then the Trail Creek Road should serve that need as well. If the sole purpose of the road is to access timber, then the road needs to be part of a separate analysis for the sale(s) in question.

B. Fire Management

5 WWF supports the BLM's plans for prescribed burns within the RA to enhance habitat and forage production. Also, wildfire management approaches represent progressive departures from BLM's historic policy of strict suppression, and is to be commended.

We disagree with proposed fire suppression east of the Bighorn River. Wildlife habitat in this area will likely be improved through burning, while range conditions also will be positively affected. Limited suppression would be preferable to full suppression.



68.4

C. Forestlands

6 The WWF is very concerned about the logging plans for Rattlesnake Mountain as proposed in the preferred alternative. This clearly reflects an economic bias for the bulk of the RA's forest resource. Considering the small contributions made to the area's timber economy from harvests on Rattlesnake Mountain, planning to harvest virtually all of its remaining tree cover seems ludicrous. A sizeable elk herd (400 animals) is known to winter here. Additional harvests in conjunction with the large burned areas on Rattlesnake Mountain could have serious impacts on these animals. The WWF supports a sharply reduced logging program which retains as much of the current cover as possible. Given the relatively slow growth rates for lodgepole pine and spruce in this area, rotations of 160 years and 300 years, respectively, would seem appropriate.

D. Hazardous Wastes

7 BLM is to be commended for promoting a hazardous wastes and materials monitoring program. However, the direction outlined on page 4 is vague. While BLM cannot be expected to patrol thousands of acres within the RA for illegal dumping or install an elaborate network of monitoring wells, the agency should be aware of potential problem areas. Communities like Cody lease landfill from the BLM. Recent citations from DEQ and EPA (June '88) for violations at the Cody landfill reflect poorly on the BLM. We suggest regularly monitoring sites such as this, and installing wells where a tendency towards violations is indicated. The public resource cannot be considered fair game for unwanted wastes.

E. Land Disposal

8 Land disposals and exchanges must, by law, take into account wildlife values. The list of possible lands for disposal is quite lengthy (Appendix E) and it is difficult to determine wildlife values from the information given. The WWF requests to be consulted and included in any deliberations regarding such disposal or exchange.

F. Rights of Way

The WWF supports avoidance areas and constraints as proposed in Alternative C for utility/transportation systems.

G. Withdrawals and Classifications

9 There is a lack of discussion of the impacts to the environment resulting from restoration of the 154,000 acres of BOR lands and 493,000 acres of C & MU lands. The BLM should be

developing it in we are coordinating closely with the WGFD. We expect to implement that plan in 1989. Adequate stands of mature and old growth timber of all types will be maintained, and the plan will contain specific management objectives for elk.

7. Please see the response to comment 8 of letter 3.

8. We will coordinate with the Wyoming Wildlife Federation and with all other interested parties on matters relating to possible sale or exchange of public lands.

9. We have considered the potential effects of opening lands now withdrawn and classified to operation of the mining laws and the public land laws. The results of these analyses are discussed in chapter 4 of the draft RMP/EIS.

10. The level of monitoring proposed for "I" category allotments is an amount determined to be reasonable on the basis of identified and anticipated resource conflicts, anticipated funding, and staff availability.

    Most of the grazing allotments in the Carter Mountain and Chapman Bench proposed ACECs are in the "I" category. In the Carter Mountain area, allotments 2545 and 2528 are "M" category allotments. Operators of these allotments generally do not use lands in the Carter Mountain proposed ACEC for cattle grazing because of poor animal performance and topographic barriers.

    In the Chapman Bench proposed ACEC, allotment 3086 is in the "M" category; however, the part of that allotment that is east of Wyoming Highway 120 is managed as a unit with allotment 1080, an "I" allotment, through an existing AMP.

    We believe we can accomplish any needed use adjustments through monitoring and negotiation with operators.

11. In table G-5 in appendix G, the lower number for short-term proposed stocking rate in the column for Alternative D reflects the SCS guidelines for each allotment. For example, the range for allotment 1002 is shown as 656-718. The lower value reflects the SCS recommended stocking level, based on our vegetative inventory, and the higher number is the maximum level of use (active preference) that could be authorized. In the preferred alternative, actual short-term stocking rates would be somewhere between these levels.

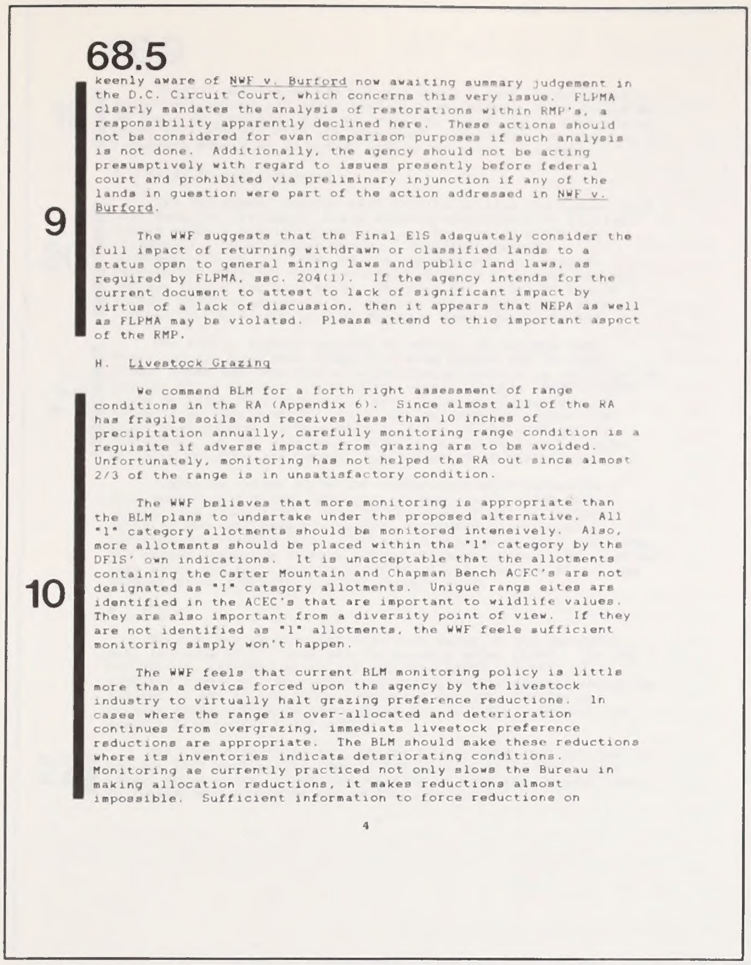
12. Forage animal unit months (AUMs) have not been allocated to wildlife; however, the BLM has identified herd units where we believe significant forage conflicts exist between livestock and big game ungulates. We have sent to the WGFD a plan to work cooperatively to document and determine the causes of these conflicts and to find solutions. Such solutions could involve habitat modifications to improve forage production and water distribution and temporary or permanent adjustments in livestock and big game numbers. Our objective is to increase overall forage animal unit months (AUMs) by improving the ecological condition of public rangelands.

13. Range enhancement is one of the highest priorities to be accomplished during the life of this plan. However, the discussion of funding levels is not within the scope of this proposed RMP. Also please see the response to comment 11 of this letter and the response to comment 9 of letter 19.

14. Please see general responses 4 and 5.

15. If wildlife or areas of important wildlife habitat could be affected, we would consult with the WGFD in situations that could involve exceptions to BLM standard mitigation guidelines. As part of the public participation process, we also would coordinate with the Wyoming Wildlife Federation and with other interested parties when appropriate. Also please see general response 5.

16. Public scoping and analysis of the management situation, which were done early in the planning process, helped the planning team to identify problems that needed to be resolved and management opportunities that could resolve or reduce problems and conflicts. On the basis of the information gathered through this process, the planning team developed a range of reasonable alternatives for analysis in the draft RMP/EIS. An alternative to eliminate mineral leasing was considered but eliminated from detailed analysis, as we described on page 8 of the draft RMP/EIS. The scoping process did not indicate the need to analyze large areas where mineral leasing would not be allowed.



68.5

9 keenly aware of NWF v. Burford now awaiting summary judgement in the D.C. Circuit Court, which concerns this very issue. FLPMA clearly mandates the analysis of restorations within RMP's, a responsibility apparently declined here. These actions should not be considered for even comparison purposes if such analysis is not done. Additionally, the agency should not be acting presumptively with regard to issues presently before federal court and prohibited via preliminary injunction if any of the lands in question were part of the action addressed in NWF v. Burford.

The WWF suggests that the Final EIS adequately consider the full impact of returning withdrawn or classified lands to a status open to general mining laws and public land laws, as required by FLPMA, sec. 204(1). If the agency intends for the current document to attest to lack of significant impact by virtue of a lack of discussion, then it appears that NEPA as well as FLPMA may be violated. Please attend to this important aspect of the RMP.

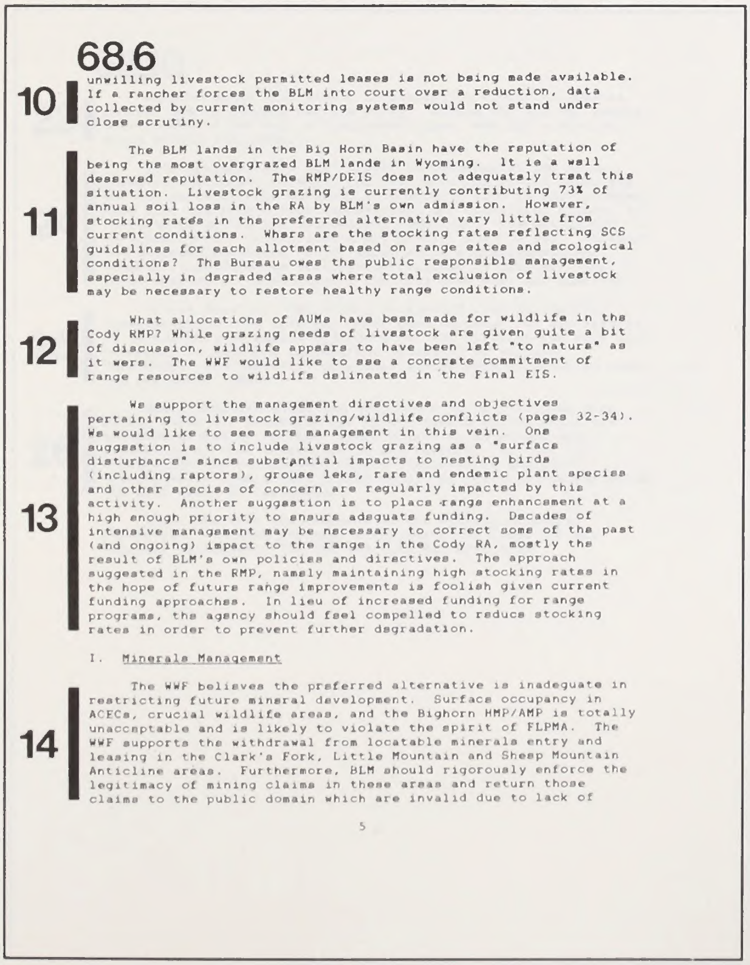
H. Livestock Grazing

10 We commend BLM for a forth right assessment of range conditions in the RA (Appendix 6). Since almost all of the RA has fragile soils and receives less than 10 inches of precipitation annually, carefully monitoring range condition is a requisite if adverse impacts from grazing are to be avoided. Unfortunately, monitoring has not helped the RA out since almost 2/3 of the range is in unsatisfactory condition.

The WWF believes that more monitoring is appropriate than the BLM plans to undertake under the proposed alternative. All "I" category allotments should be monitored intensively. Also, more allotments should be placed within the "I" category by the DEIS' own indications. It is unacceptable that the allotments containing the Carter Mountain and Chapman Bench ACEC's are not designated as "I" category allotments. Unique range sites are identified in the ACEC's that are important to wildlife values. They are also important from a diversity point of view. If they are not identified as "I" allotments, the WWF feels sufficient monitoring simply won't happen.

The WWF feels that current BLM monitoring policy is little more than a device forced upon the agency by the livestock industry to virtually halt grazing preference reductions. In cases where the range is over-allocated and deterioration continues from overgrazing, immediate livestock preference reductions are appropriate. The BLM should make these reductions where its inventories indicate deteriorating conditions. Monitoring as currently practiced not only slows the Bureau in making allocation reductions, it makes reductions almost impossible. Sufficient information to force reductions on

4



68.6

10 unwilling livestock permitted leases is not being made available. If a rancher forces the BLM into court over a reduction, data collected by current monitoring systems would not stand under close scrutiny.

11 The BLM lands in the Big Horn Basin have the reputation of being the most overgrazed BLM lands in Wyoming. It is a well deserved reputation. The RMP/DEIS does not adequately treat this situation. Livestock grazing is currently contributing 73% of annual soil loss in the RA by BLM's own admission. However, stocking rates in the preferred alternative vary little from current conditions. Where are the stocking rates reflecting SCS guidelines for each allotment based on range sites and ecological conditions? The Bureau owes the public responsible management, especially in degraded areas where total exclusion of livestock may be necessary to restore healthy range conditions.

12 What allocations of AUMs have been made for wildlife in the Cody RMP? While grazing needs of livestock are given quite a bit of discussion, wildlife appears to have been left "to nature" as it were. The WWF would like to see a concrete commitment of range resources to wildlife delineated in the Final EIS.

13 We support the management directives and objectives pertaining to livestock grazing/wildlife conflicts (pages 32-34). We would like to see more management in this vein. One suggestion is to include livestock grazing as a "surface disturbance" since substantial impacts to nesting birds (including raptors), grouse leks, rare and endemic plant species and other species of concern are regularly impacted by this activity. Another suggestion is to place range enhancement at a high enough priority to ensure adequate funding. Decades of intensive management may be necessary to correct some of the past (and ongoing) impact to the range in the Cody RA, mostly the result of BLM's own policies and directives. The approach suggested in the RMP, namely maintaining high stocking rates in the hope of future range improvements is foolish given current funding approaches. In lieu of increased funding for range programs, the agency should feel compelled to reduce stocking rates in order to prevent further degradation.

I. Minerals Management

14 The WWF believes the preferred alternative is inadequate in restricting future mineral development. Surface occupancy in ACECs, crucial wildlife areas, and the Bighorn HMP/AMP is totally unacceptable and is likely to violate the spirit of FLPMA. The WWF supports the withdrawal from locatable minerals entry and leasing in the Clark's Fork, Little Mountain and Sheep Mountain Anticline areas. Furthermore, BLM should rigorously enforce the legitimacy of mining claims in these areas and return those claims to the public domain which are invalid due to lack of

5

17. Detailed activity level plans will be developed during implementation of the RMP. Those plans will include consideration of such things as road and trail closures and enforcement of ORV designations. Seasonal closures such as the one you recommend for the Carter Mountain area would be considered in activity planning level plans. Any seasonal closures would be reevaluated each year. Also please see the response to comment 10 of letter 5.

18. The management of wetlands systems is one of the highest priorities for funding within the BLM wildlife program. Efforts to maintain or restore wetlands in the Cody Resource Area would not be confined to "I" category allotments. Details of the wetlands management program in the Cody Resource Area will be presented in the forthcoming draft wetlands HMP, which the BLM is preparing in cooperation with the WGFD.

19. The methods of sagebrush control that may be used within 500 feet of water are not indicated. They would be determined individually during activity planning for each site. This activity planning would include environmental analysis and appropriate public involvement. Spraying is only one option of several that may be considered, and different methods of spraying also would be considered. Also please see the response to comment 15 of this letter.

20. The WGFD herd unit data presented in the draft RMP/EIS (1984 data) were the most current population and trend data available when we began the planning effort in 1985. Since it is necessary to use consistent data in the evaluation process, the 1987 figures would not accurately reflect population projections (percent change) that are based on 1984 data. Use of the 1984 population estimates is not of significant concern, because we are dealing more with population trends than with population numbers.

    The BLM recognizes the importance of big game seasonal ranges and, with help from the WGFD, has tried to provide adequate protection. In addition, 1987 WGFD herd data indicate that 20 of the 27 herd units in the planning area are at or above WGFD population objective levels, and 3 others are increasing toward objective levels. (Data on pronghorns are not included.) Considering these factors, our analysis does not support the need for such higher levels of protection as you suggest.

    The draft RMP/EIS statement: ". . .separate parturition areas have not been delineated for species other than elk," is correct according to the data provided by WGFD Game District 2. Game District 2 updated this information in July 1986 specifically so that the BLM would have current seasonal range information for the RMP/EIS. Also please see general response 4, the response to comment 12 of this letter, and appendix J of this document.

21. Please see the responses to comment 4 of letter 6 and comment 2 of letter 21.

22. Please see the response to comment 17 of this letter and the response to comment 6 of letter 9.

23. On the basis of our analysis of potential effects in the Chapman bench proposed ACEC, a seasonal closure to livestock grazing does not appear necessary at present. Seasonal closures could be required in the future if our monitoring of nesting ranges and production of water birds indicate the need for the restriction.

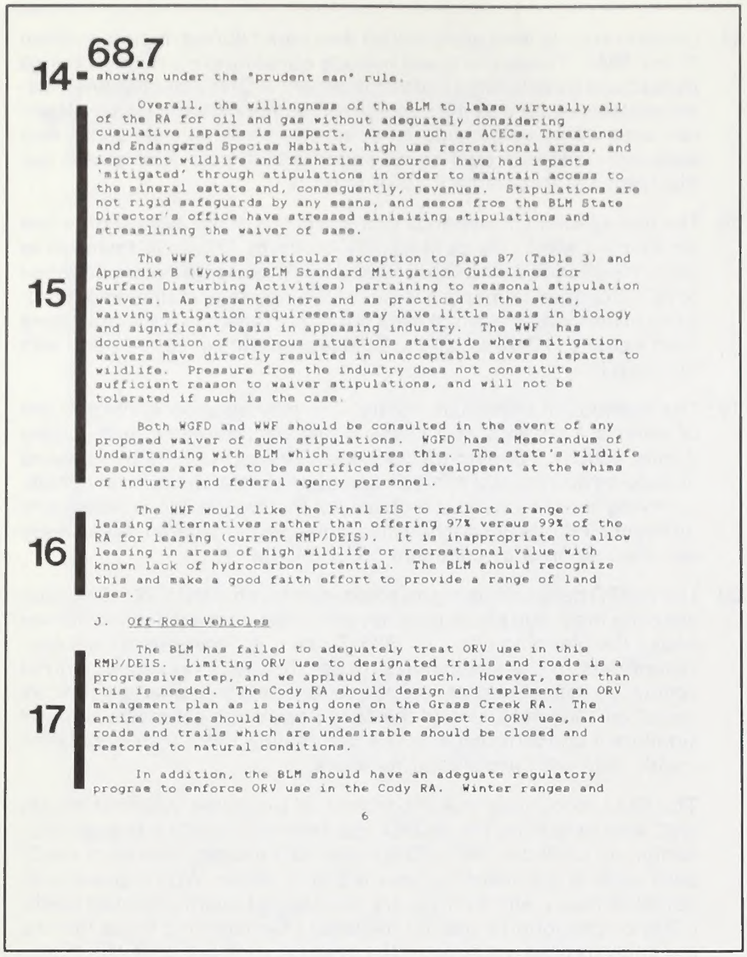
    We do not believe that ORV use on designated roads and trails would present a problem to the birds. If ORV traffic becomes a problem, we would do whatever is necessary to protect the nesting habitat.

24. Please see the response to comment 4 of letter 4.

25. As you have indicated, there is very little interest in exploring for oil and gas on Little Mountain. However, we believe drilling could be done without adverse effects on cave resources because intensive mitigation, including NSO restrictions above important caves would be practiced. Also please see the response to comment 5 of letter 4.

    Designation of an ACEC because of hazards is explained in detail in appendix J to this document. Also please see general response 4.

26. Please see the response to comment 9 of letter 4.



68.7

14 showing under the "prudent man" rule.

Overall, the willingness of the BLM to lease virtually all of the RA for oil and gas without adequately considering cumulative impacts is suspect. Areas such as ACECs, Threatened and Endangered Species Habitat, high use recreational areas, and important wildlife and fisheries resources have had impacts 'mitigated' through stipulations in order to maintain access to the mineral estate and, consequently, revenues. Stipulations are not rigid safeguards by any means, and memos from the BLM State Director's office have stressed minimizing stipulations and streamlining the waiver of same.

15 The WWF takes particular exception to page 87 (Table 3) and Appendix B (Wyoming BLM Standard Mitigation Guidelines for Surface Disturbing Activities) pertaining to seasonal stipulation waivers. As presented here and as practiced in the state, waiving mitigation requirements may have little basis in biology and significant basis in appeasing industry. The WWF has documentation of numerous situations statewide where mitigation waivers have directly resulted in unacceptable adverse impacts to wildlife. Pressure from the industry does not constitute sufficient reason to waiver stipulations, and will not be tolerated if such is the case.

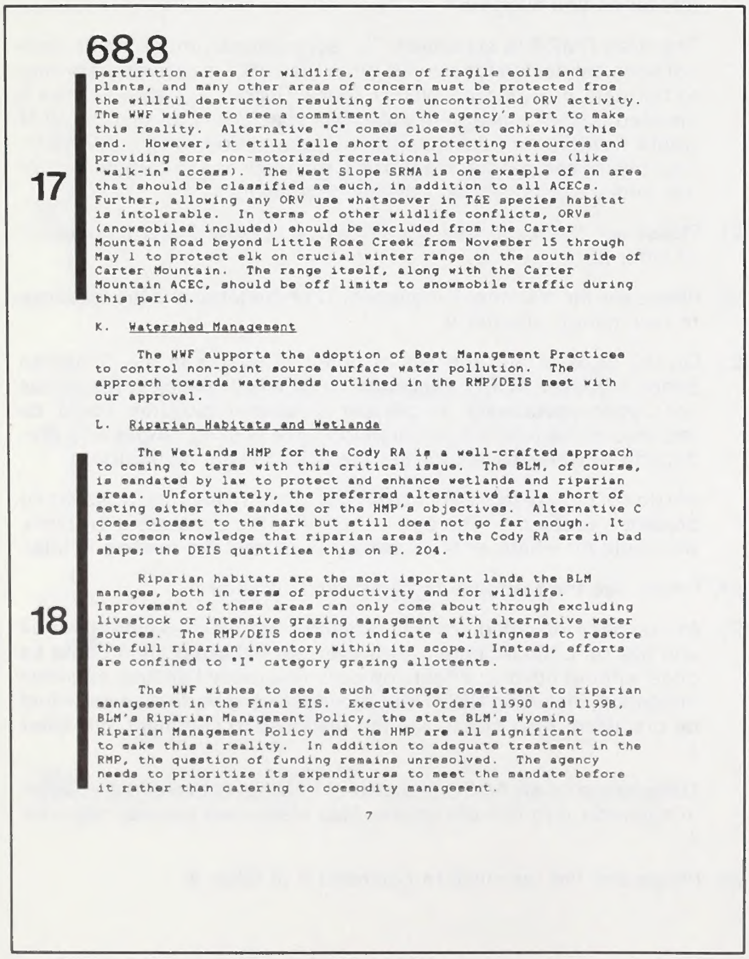
Both WGFD and WWF should be consulted in the event of any proposed waiver of such stipulations. WGFD has a Memorandum of Understanding with BLM which requires this. The state's wildlife resources are not to be sacrificed for development at the whims of industry and federal agency personnel.

16 The WWF would like the Final EIS to reflect a range of leasing alternatives rather than offering 97% versus 99% of the RA for leasing (current RMP/DEIS). It is inappropriate to allow leasing in areas of high wildlife or recreational value with known lack of hydrocarbon potential. The BLM should recognize this and make a good faith effort to provide a range of land uses.

J. Off-Road Vehicles

17 The BLM has failed to adequately treat ORV use in this RMP/DEIS. Limiting ORV use to designated trails and roads is a progressive step, and we applaud it as such. However, more than this is needed. The Cody RA should design and implement an ORV management plan as is being done on the Grass Creek RA. The entire system should be analyzed with respect to ORV use, and roads and trails which are undesirable should be closed and restored to natural conditions.

In addition, the BLM should have an adequate regulatory program to enforce ORV use in the Cody RA. Winter ranges and



68.8

17 parturition areas for wildlife, areas of fragile soils and rare plants, and many other areas of concern must be protected from the willful destruction resulting from uncontrolled ORV activity. The WWF wishes to see a commitment on the agency's part to make this reality. Alternative "C" comes closest to achieving this end. However, it still falls short of protecting resources and providing more non-motorized recreational opportunities (like "walk-in" access). The West Slope SRMA is one example of an area that should be classified as such, in addition to all ACECs. Further, allowing any ORV use whatsoever in T&E species habitat is intolerable. In terms of other wildlife conflicts, ORVs (snowmobiles included) should be excluded from the Carter Mountain Road beyond Little Rose Creek from November 15 through May 1 to protect elk on crucial winter range on the south side of Carter Mountain. The range itself, along with the Carter Mountain ACEC, should be off limits to snowmobile traffic during this period.

K. Watershed Management

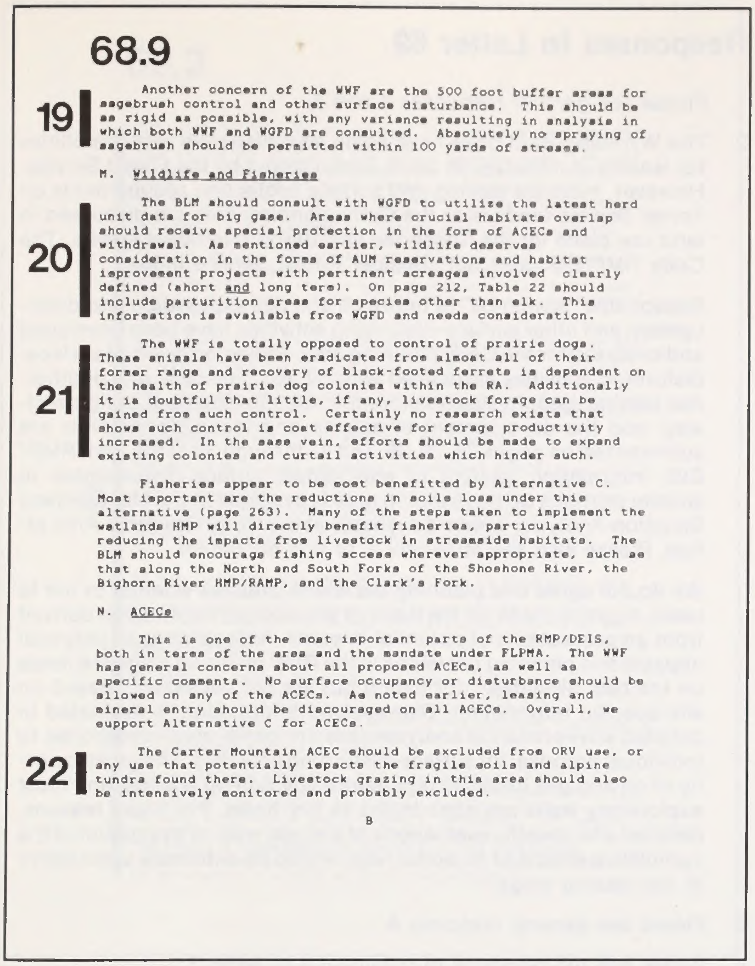
The WWF supports the adoption of Best Management Practices to control non-point source surface water pollution. The approach towards watersheds outlined in the RMP/DEIS meet with our approval.

L. Riparian Habitats and Wetlands

18 The Wetlands HMP for the Cody RA is a well-crafted approach to coming to terms with this critical issue. The BLM, of course, is mandated by law to protect and enhance wetlands and riparian areas. Unfortunately, the preferred alternative falls short of meeting either the mandate or the HMP's objectives. Alternative C comes closest to the mark but still does not go far enough. It is common knowledge that riparian areas in the Cody RA are in bad shape; the DEIS quantifies this on P. 204.

Riparian habitats are the most important lands the BLM manages, both in terms of productivity and for wildlife. Improvement of these areas can only come about through excluding livestock or intensive grazing management with alternative water sources. The RMP/DEIS does not indicate a willingness to restore the full riparian inventory within its scope. Instead, efforts are confined to "I" category grazing allotments.

The WWF wishes to see a much stronger commitment to riparian management in the Final EIS. Executive Orders 11990 and 1199B, BLM's Riparian Management Policy, the state BLM's Wyoming Riparian Management Policy and the HMP are all significant tools to make this a reality. In addition to adequate treatment in the RMP, the question of funding remains unresolved. The agency needs to prioritize its expenditures to meet the mandate before it rather than catering to commodity management.



68.9

19 Another concern of the WWF are the 500 foot buffer areas for sagebrush control and other surface disturbance. This should be as rigid as possible, with any variance resulting in analysis in which both WWF and WGFD are consulted. Absolutely no spraying of sagebrush should be permitted within 100 yards of streams.

M. Wildlife and Fisheries

20 The BLM should consult with WGFD to utilize the latest herd unit data for big game. Areas where crucial habitats overlap should receive special protection in the form of ACECs and withdrawal. As mentioned earlier, wildlife deserves consideration in the forms of AUM reservations and habitat improvement projects with pertinent acreages involved clearly defined (short and long term). On page 212, Table 22 should include parturition areas for species other than elk. This information is available from WGFD and needs consideration.

21 The WWF is totally opposed to control of prairie dogs. These animals have been eradicated from almost all of their former range and recovery of black-footed ferrets is dependent on the health of prairie dog colonies within the RA. Additionally it is doubtful that little, if any, livestock forage can be gained from such control. Certainly no research exists that shows such control is cost effective for forage productivity increased. In the same vein, efforts should be made to expand existing colonies and curtail activities which hinder such.

Fisheries appear to be most benefitted by Alternative C. Most important are the reductions in soils loss under this alternative (page 263). Many of the steps taken to implement the wetlands HMP will directly benefit fisheries, particularly reducing the impacts from livestock in streamside habitats. The BLM should encourage fishing access wherever appropriate, such as that along the North and South Forks of the Shoshone River, the Bighorn River HMP/RAMP, and the Clark's Fork.

N. ACECs

This is one of the most important parts of the RMP/DEIS, both in terms of the area and the mandate under FLPMA. The WWF has general concerns about all proposed ACECs, as well as specific comments. No surface occupancy or disturbance should be allowed on any of the ACECs. As noted earlier, leasing and mineral entry should be discouraged on all ACECs. Overall, we support Alternative C for ACECs.

22 The Carter Mountain ACEC should be excluded from ORV use, or any use that potentially impacts the fragile soils and alpine tundra found there. Livestock grazing in this area should also be intensively monitored and probably excluded.

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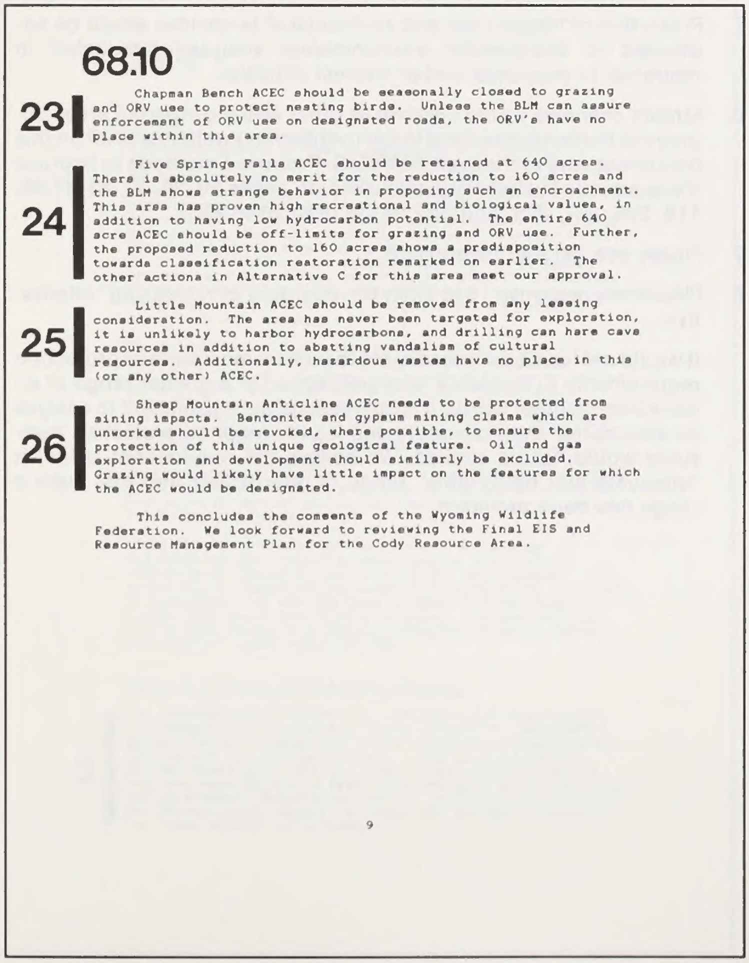

68.10

23 Chapman Bench ACEC should be seasonally closed to grazing and ORV use to protect nesting birds. Unless the BLM can assure enforcement of ORV use on designated roads, the ORV's have no place within this area.

24 Five Springs Falls ACEC should be retained at 640 acres. There is absolutely no merit for the reduction to 160 acres and the BLM shows strange behavior in proposing such an encroachment. This area has proven high recreational and biological values, in addition to having low hydrocarbon potential. The entire 640 acre ACEC should be off-limits for grazing and ORV use. Further, the proposed reduction to 160 acres shows a predisposition towards classification reatoration remarked on earlier. The other actions in Alternative C for this area meet our approval.

25 Little Mountain ACEC should be removed from any leasing consideration. The area has never been targeted for exploration, it is unlikely to harbor hydrocarbons, and drilling can harm cave resources in addition to abetting vandalism of cultural resources. Additionally, hazardous wastes have no place in this (or any other) ACEC.

26 Sheep Mountain Anticline ACEC needs to be protected from mining impacts. Bentonite and gypsum mining claims which are unworked should be revoked, where possible, to ensure the protection of this unique geological feature. Oil and gas exploration and development should similarly be excluded. Grazing would likely have little impact on the features for which the ACEC would be designated.

This concludes the comments of the Wyoming Wildlife Federation. We look forward to reviewing the Final EIS and Resource Management Plan for the Cody Resource Area.

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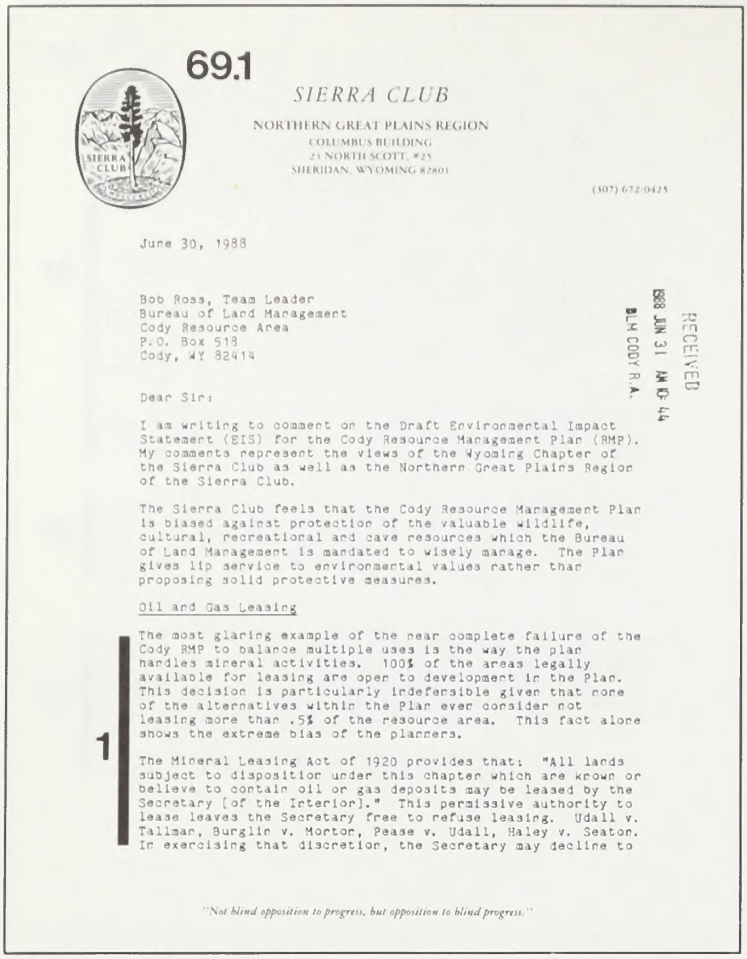


69.1

SIERRA CLUB
NORTHERN GREAT PLAINS REGION
COLUMBUS BUILDING
23 NORTH SCOTT, #25
SHERIDAN, WYOMING 82801

(307) 672-0425

June 30, 1988

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

RECEIVED
1988 JUN 31 AM 10 44
BLM CODY R.A.

Dear Sir:

I am writing to comment on the Draft Environmental Impact Statement (EIS) for the Cody Resource Management Plan (RMP). My comments represent the views of the Wyoming Chapter of the Sierra Club as well as the Northern Great Plains Region of the Sierra Club.

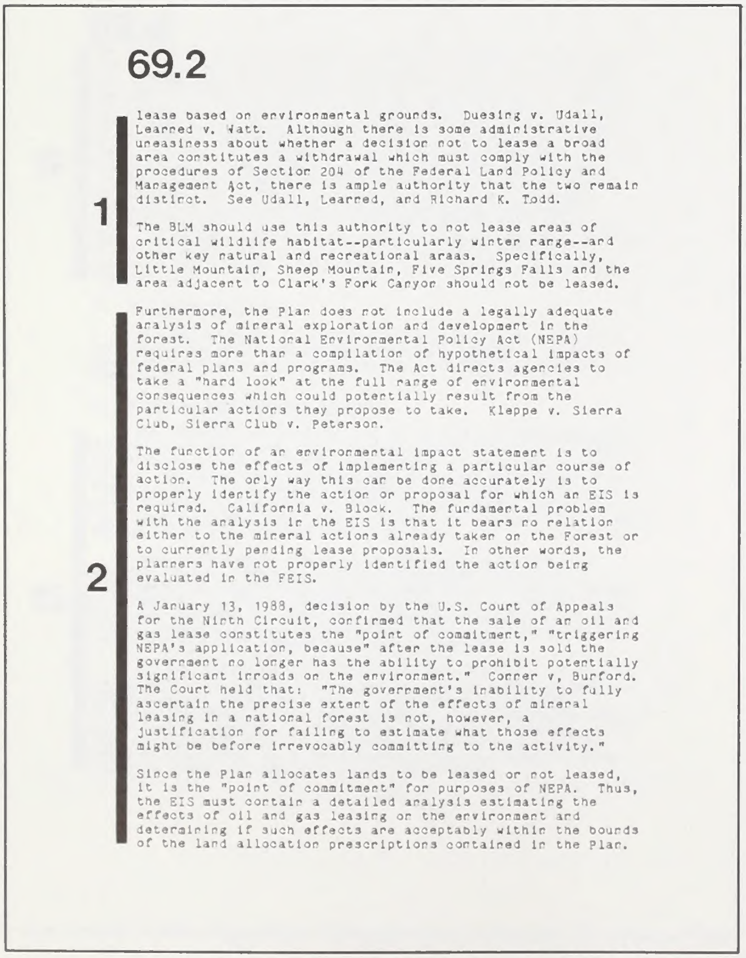
The Sierra Club feels that the Cody Resource Management Plan is biased against protection of the valuable wildlife, cultural, recreational and cave resources which the Bureau of Land Management is mandated to wisely manage. The Plan gives lip service to environmental values rather than proposing solid protective measures.

Oil and Gas Leasing

1 The most glaring example of the near complete failure of the Cody RMP to balance multiple uses is the way the plan handles mineral activities. 100% of the areas legally available for leasing are open to development in the Plan. This decision is particularly indefensible given that none of the alternatives within the Plan ever consider not leasing more than .5% of the resource area. This fact alone shows the extreme bias of the planners.

The Mineral Leasing Act of 1920 provides that: "All lands subject to disposition under this chapter which are known or believe to contain oil or gas deposits may be leased by the Secretary [of the Interior]." This permissive authority to lease leaves the Secretary free to refuse leasing. Udall v. Tallman, Burglin v. Morton, Pease v. Udall, Haley v. Seaton. In exercising that discretion, the Secretary may decline to

"Not blind opposition to progress, but opposition to blind progress."



69.2

1 lease based on environmental grounds. Duesing v. Udall, Learned v. Watt. Although there is some administrative uneasiness about whether a decision not to lease a broad area constitutes a withdrawal which must comply with the procedures of Section 204 of the Federal Land Policy and Management Act, there is ample authority that the two remain distinct. See Udall, Learned, and Richard K. Todd.

The BLM should use this authority to not lease areas of critical wildlife habitat--particularly winter range--and other key natural and recreational araas. Specifically, Little Mountain, Sheep Mountain, Five Springs Falls and the area adjacent to Clark's Fork Canyon should not be leased.

2 Furthermore, the Plan does not include a legally adequate analysis of mineral exploration and development in the forest. The National Environmental Policy Act (NEPA) requires more than a compilation of hypothetical impacts of federal plans and programs. The Act directs agencies to take a "hard look" at the full range of environmental consequences which could potentially result from the particular actions they propose to take. Kleppe v. Sierra Club, Sierra Club v. Peterson.

The function of an environmental impact statement is to disclose the effects of implementing a particular course of action. The only way this can be done accurately is to properly identify the action or proposal for which an EIS is required. California v. Block. The fundamental problem with the analysis in the EIS is that it bears no relation either to the mineral actions already taken on the Forest or to currently pending lease proposals. In other words, the planners have not properly identified the action being evaluated in the FEIS.

A January 13, 1988, decision by the U.S. Court of Appeals for the Ninth Circuit, confirmed that the sale of an oil and gas lease constitutes the "point of commitment," "triggering NEPA's application, because" after the lease is sold the government no longer has the ability to prohibit potentially significant inroads on the environment." Conner v, Burford. The Court held that: "The government's inability to fully ascertain the precise extent of the effects of mineral leasing in a national forest is not, however, a justification for failing to estimate what those effects might be before irrevocably committing to the activity."

Since the Plan allocates lands to be leased or not leased, it is the "point of commitment" for purposes of NEPA. Thus, the EIS must contain a detailed analysis estimating the effects of oil and gas leasing on the environment and determining if such effects are acceptably within the bounds of the land allocation prescriptions contained in the Plan.

Responses to Letter 69

1. Please see general responses 4 and 5.
2. The Wyoming BLM does have some administrative responsibilities for leasing of minerals on lands administered by the Forest Service. However, minerals leasing and surface protection requirements on Forest Service lands near the Cody planning area are discussed in land use plans for the Shoshone and Bighorn national forests. The Cody RMP/EIS does not consider Forest Service lands.

   Reasonable "scenarios" of future oil and gas exploration and development and other surface-disturbing activities have been developed and analyzed for the Cody planning area. Projected levels of surface-disturbing activities associated with oil and gas, coal, and geothermal leasing; geophysical exploration; the development of rights-of-way; and the development of salable and locatable minerals are summarized on pages 23, 29, 36, and 37 through 39 of the draft RMP/EIS. Information relating to anticipated surface disturbances in smaller portions of the planning area is available in the Management Situation Analysis, which is available at the Cody Resource Area office. Please also see appendix K of this document.

   We do not agree that planning decisions, such as whether or not to lease, must be made on the basis of *site-specific* information derived from an assessment of potential impacts. Assessments of potential impacts and planning decisions at the RMP planning stage are made on the best available information but are not necessarily based on site-specific information. Site-specific information is evaluated in detailed environmental analyses that are conducted in response to individual proposal for surface-disturbing activities. The great majority of oil and gas leases expire before any drilling is done, and most exploratory wells are abandoned as dry holes. For these reasons, detailed site-specific evaluations of a single well, or evaluation of the cumulative effects of an entire field, would be extremely speculative at the leasing stage.
3. Please see general response 4.
4. Please see the response to comment 4 of letter 3.
5. Protection of fragile soils and avoidance of landslides would be addressed in site-specific environmental analyses conducted in response to proposed timber harvest activities.
6. Stream channels would improve as other wetland/riparian areas improve at the level described in the forthcoming wetlands HMP, in this document, and in the draft RMP/EIS. Proposed methods to improve these aquatic systems are discussed on pages 10, 26, 32, 33, 47-49, 119, 298, 307, 323, and 341 of the draft RMP/EIS.
7. Please see general response 6.
8. Please see response 16 to letter 68 regarding a "no leasing" alternative.

   It would not have been reasonable to remove most surface protection requirements to provide a false perception of a greater range of alternatives. In other words, it is not reasonable or proficient to analyze an assumption that necessary and legally required protection measures would not be applied. We believe the requirement is for an "adequate and reasonable" range of alternatives and that such a range has been provided.

69.3

NEPA also requires an analysis of the impact on the resource area of the exercise of vested lease rights. Leases have been issued for virtually the entire resource area. 88,000 acres are under lease in areas where production is taking place. The terms of these leases, in particular the stipulations and conditions included in them, define the rights of the lessee to explore for and develop the mineral resources of the leasehold. These terms also dictate the range of possible environmental impacts which may result from oil and gas exploration and development activities. Only by examining the existing and pending leases to determine what the lessees will be permitted to do will the Resource Area have a basis for planning and decisionmaking under the Plan.

While exploration is not inevitable, this does not alter the fact that issuance of a lease irrevocably conveys some right to conduct exploration and development, with the attendant environmental consequences for the Resource Area. The EIS must evaluate this resource commitment and its environmental consequences in order to provide a basis for the Plan. The present EIS does not. As a result, the oil and gas discussion in the EIS is entirely hypothetical.

2 The decision to make available for mineral exploration and development virtually all non Wilderness Study Areas lands is not based upon an analysis of the impacts on the Forest of exploration and development. The discussion of the impacts of mineral exploration and development is extremely cursory and general. It consists of statements of the obvious.

In sum, both the Plan and decisions made in accordance with it must be based upon site-specific information derived from an assessment of the impact of mineral activities on the particular area of the Forest in which these activities may take place. This assessment has not been done for the Cody Resource Area.

In addition, given the number of leases issued and pending in the Forest, and the number of claims, there is a need for an analysis that addresses the cumulative effects of drilling multiple wells and constructing multiple roads and developing multiple fields, as well as the high probability for development of other areas.

The courts have emphasized the need to consider the cumulative effects of several proposed activities before the activities are approved and begin. Conner v. Burford, Bob Marshall Alliance v. Watt, Thomas v. Peterson, In Conner v. Burford, for example, the district court stated: "Obviously a comprehensive analysis of the cumulative impacts of several oil and gas development activities must be done before a single activity can proceed."

69.4

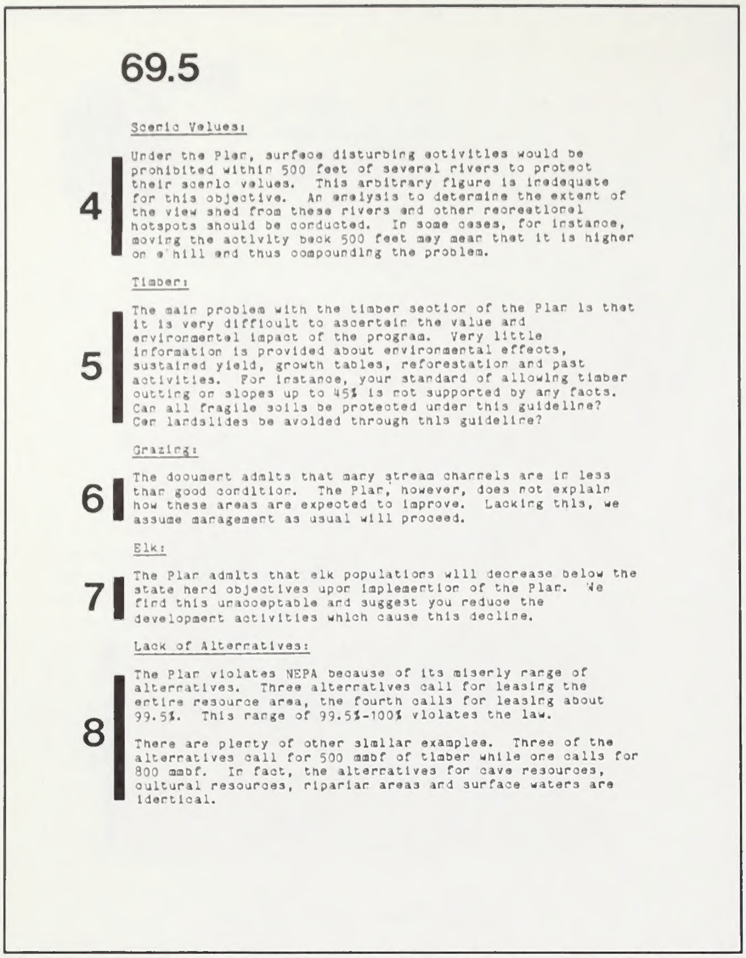
The Plan's only answer for not declaring any areas off limits to leasing is that stipulations will be used to protect the resource. Experience indicates, however, that stipulations are a poor substitute fon decisions to recommend against leasing or withdrawing lands in an area with resources which are incompatible with mineral development. The BLM is demonstrably reluctant to enforce stipulations that interfere with what are perceived to be the rights of a leasee. A more sensible approach, and one which is consistent with multiple use, is to recommend against leasing and consider areas for minerals withdrawal so as to assure that the management goals of these areas can be met and that the uses and occupancy of the Forest are consistent with the Plan.

The use of No Surface Occupancy (NSO) stipulations as a substitute for land assignments making certain areas off limits to leasing. Included are blackfooted ferret habitat, certain caves and administrative units. There is no rationale fon making these areas available for oil and gas leasing at all, even with the NSO stipulation. The basic incompatibility between the identified resource values of the areas and oil and gas exploration and development will not change, and leasing with the NSO sets the stage for conflict between the lessee and the BLM. As noted earlier, the BLM has been unwilling to enfonce the NSO stipulation, particularly when it means that the lessee will not be able to develop the lease.

Given the new proposed BLM regulations on leasing, all stipulations are subject to modification with little assurance of adequate justification for this change. This gives little reason for conservationists to trust that these stipulations will ever be used to their fullest extent unless they cause the company no pain. Enclosed are the Sierra Club comments on the new regulations which address the issue of lease modifications.

Areas of Critical Environmental Concern:

3 The proposed ACEC designations are virtually meaningless. The designations are merely labels without any management guidelines with teeth. All of the areas would remain open to ORV use and oil and gas leasing. The only difference between these areas and the rest of the resource area is that you have agreed to feel worse and more guilty when they are developed. Specifio management guideline which protect the recreational, scenic, biologic and geologic values of the areas should be included.



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Scenic Values:

4 Under the Plan, surface disturbing activities would be prohibited within 500 feet of several rivers to protect their scenic values. This arbitrary figure is inadequate for this objective. An analysis to determine the extent of the view shed from these rivers and other recreational hotspots should be conducted. In some cases, for instance, moving the activity back 500 feet may mean that it is higher on a hill and thus compounding the problem.

Timber:

5 The main problem with the timber section of the Plan is that it is very difficult to ascertain the value and environmental impact of the program. Very little information is provided about environmental effects, sustained yield, growth tables, reforestation and past activities. For instance, your standard of allowing timber cutting on slopes up to 45% is not supported by any facts. Can all fragile soils be protected under this guideline? Can landslides be avoided through this guideline?

Grazing:

6 The document admits that many stream channels are in less than good condition. The Plan, however, does not explain how these areas are expected to improve. Lacking this, we assume management as usual will proceed.

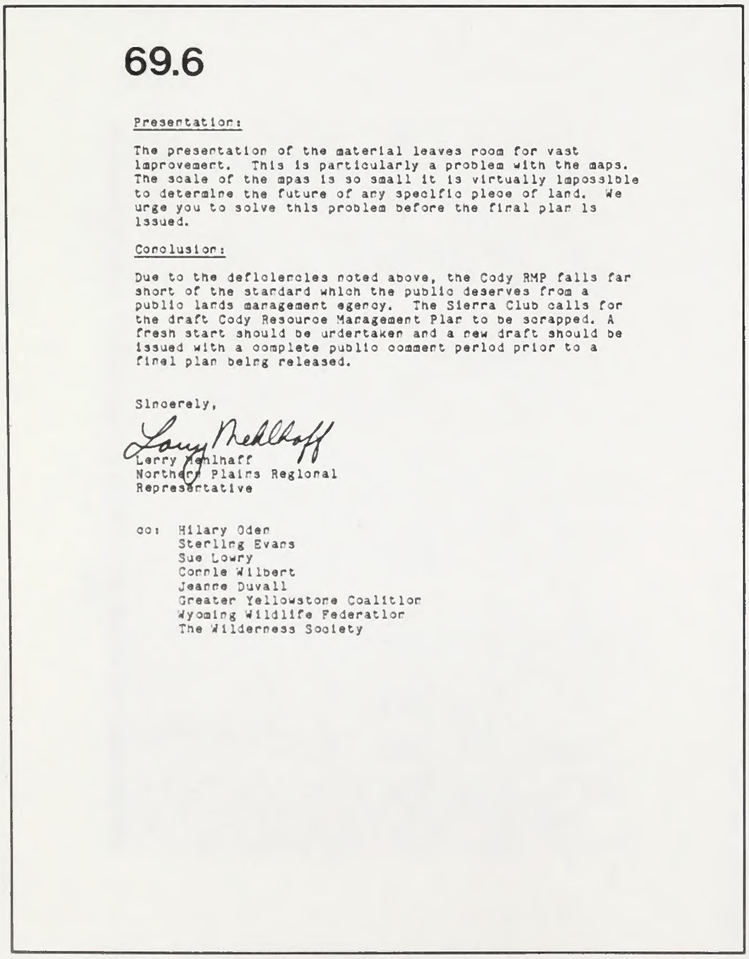
Elk:

7 The Plan admits that elk populations will decrease below the state herd objectives upon implemention of the Plan. We find this unacceptable and suggest you reduce the development activities which cause this decline.

Lack of Alternatives:

8 The Plan violates NEPA because of its miserly range of alternatives. Three alternatives call for leasing the entire resource area, the fourth calls for leasing about 99.5%. This range of 99.5%-100% violates the law.

There are plenty of other similar examples. Three of the alternatives call for 500 mmbf of timber while one calls for 800 mmbf. In fact, the alternatives for cave resources, cultural resources, riparian areas and surface waters are identical.



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Presentation:

The presentation of the material leaves room for vast improvement. This is particularly a problem with the maps. The scale of the mpas is so small it is virtually impossible to determine the future of any specific piece of land. We urge you to solve this problem before the final plan is issued.

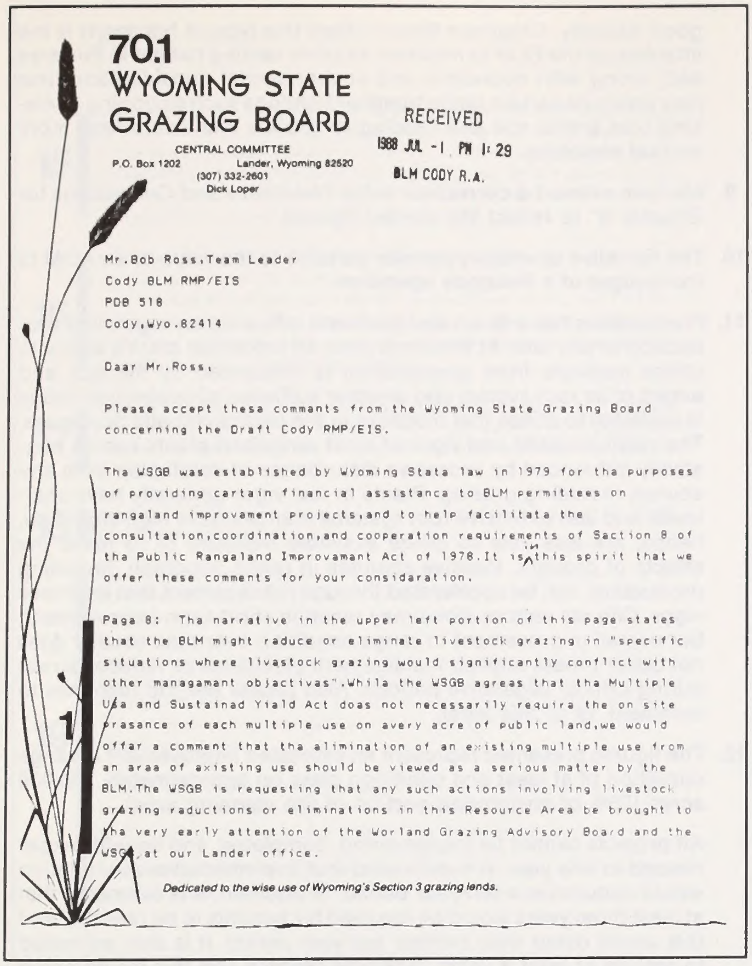
Conclusion:

Due to the deficiencies noted above, the Cody RMP falls far short of the standard which the public deserves from a public lands management agency. The Sierra Club calls for the draft Cody Resource Management Plan to be scrapped. A fresh start should be undertaken and a new draft should be issued with a complete public comment period prior to a final plan being released.

Sincerely,

Larry Mehlhaff
Northern Plains Regional
Representative

cc: Hilary Oden
Sterling Evans
Sue Lowry
Connie Wilbert
Jeanne Duvall
Greater Yellowstone Coalition
Wyoming Wildlife Federation
The Wilderness Society



70.1

WYOMING STATE
GRAZING BOARD
CENTRAL COMMITTEE
P.O. Box 1202 Lander, Wyoming 82520
(307) 332-2601
Dick Loper

RECEIVED
1988 JUL -1 PM 1: 29
BLM CODY R.A.

Mr.Bob Ross,Team Leader
Cody BLM RMP/EIS
PDB 518
Cody,Wyo.82414

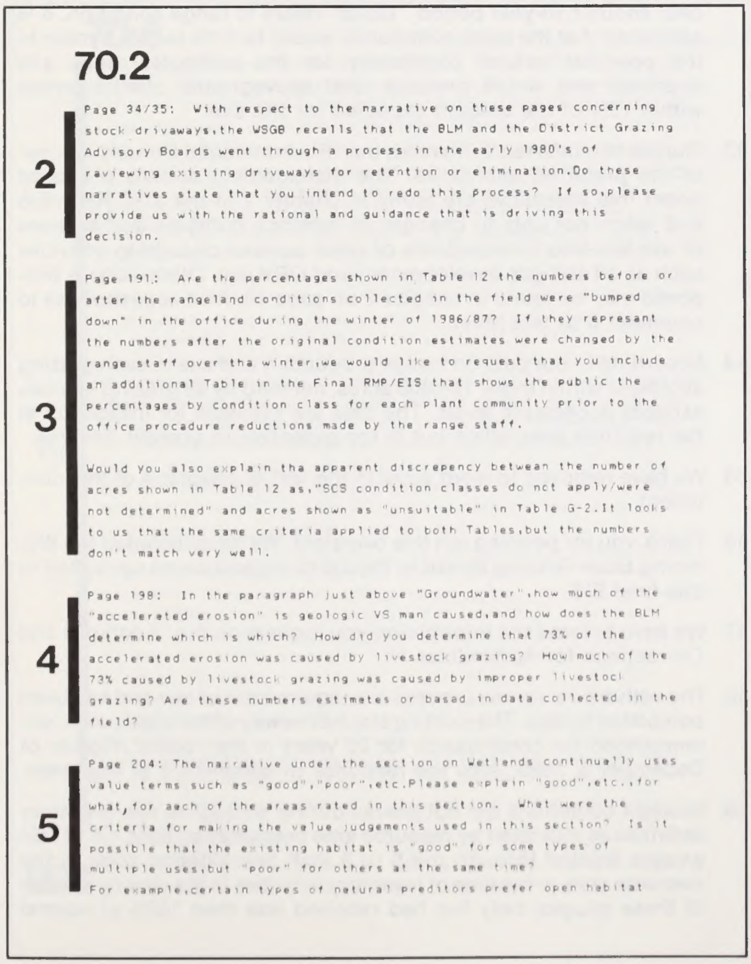
Daar Mr.Ross,

Please accept thesa commants from the Wyoming State Grazing Board concerning the Draft Cody RMP/EIS.

Tha WSGB was established by Wyoming Stata law in 1979 for tha purposes of providing cartain financial assistanca to BLM permittees on rangaland improvament projects,and to help facilitata the consultation,coordination,and cooperation requirements of Saction 8 of tha Public Rangaland Improvamant Act of 1978.It is in this spirit that we offer these comments for your considaration.

1 Paga 8: Tha narrative in the upper left portion of this page states that the BLM might raduce or eliminate livestock grazing in "specific situations where livastock grazing would significantly conflict with other managamant objactivas".Whila the WSGB agreas that tha Multiple Usa and Sustainad Yiald Act doas not necessarily requira the on site prasance of each multiple use on avery acre of public land,we would offar a comment that tha alimination of an existing multiple use from an araa of axisting use should be viewed as a serious matter by the BLM.The WSGB is requesting that any such actions involving livestock grazing raductions or eliminations in this Resource Area be brought to tha very early attention of the Worland Grazing Advisory Board and the WSGB,at our Lander office.

Dedicated to the wise use of Wyoming's Section 3 grazing lands.



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2 Page 34/35: With respect to the narrative on these pages concerning stock drivaways,the WSGB recalls that the BLM and the District Grazing Advisory Boards went through a process in the early 1980's of raviewing existing driveways for retention or elimination.Do these narratives state that you intend to redo this process? If so,please provide us with the rational and guidance that is driving this decision.

3 Page 191: Are the percentages shown in Table 12 the numbers before or after the rangeland conditions collected in the field were "bumped down" in the office during the winter of 1986/87? If they represant the numbers after the original condition estimates were changed by the range staff over tha winter,we would like to request that you include an additional Table in the Final RMP/EIS that shows the public the percentages by condition class for each plant community prior to the office procadure reductions made by the range staff.

Would you also explain tha apparent discrepency betwean the number of acres shown in Table 12 as,"SCS condition classes do not apply/were not determined" and acres shown as "unsuitable" in Table G-2.It looks to us that the same criteria applied to both Tables,but the numbers don't match very well.

4 Page 198: In the paragraph just above "Groundwater",how much of the "accelereted erosion" is geologic VS man caused,and how does the BLM determine which is which? How did you determine thet 73% of the accelerated erosion was caused by livestock grazing? How much of the 73% caused by livestock grazing was caused by improper livestock grazing? Are these numbers estimetes or basad in data collected in the field?

5 Page 204: The narrative under the section on Wetlends continuelly uses value terms such es "good","poor",etc.Please explein "good",etc.,for what,for aech of the areas rated in this section. Whet were the criteria for making the velue judgements used in this section? Is it possible that the existing habitat is "good" for some types of multiple uses,but "poor" for others at the same time?
For example,certain types of netural preditors prefer open hebitat

Responses to Letter 70

1. The elimination of any form of multiple use from a parcel of public land is certainly viewed as a serious action by the BLM. Should any need to reduce or eliminate livestock grazing in any part of the planning area be identified, the affected permittee and any other appropriate parties would be notified in accordance with 43 CFR 4110.3-3 (b).

2. Pages 34 and 35 of the draft RMP/EIS represent the requirements of the normal planning process that the existing management direction and alternatives be considered. As we said, the preferred alternative is to retain existing stock driveway withdrawals. In the future, if it is found that stock driveway withdrawals are no longer serving the purpose for which they were withdrawn, the BLM, in consultation with the Worland District Grazing Advisory Board, may propose to revoke stock driveway withdrawals. However, the areas in question refer to the trailing that is occurring outside designated stock driveways to accommodate existing needs to move livestock.

3. The percentages, shown in table 12, represent the final ecological condition classes derived from analyzing the field data collected during the ecological site inventory. The condition classes considered both species composition and total annual production associated with field estimates and observations of each vegetative community. All field data are available for review in the Cody Resource Area office.

   The acreage difference between table 12 and table G-2 occurred because in table 12 the acreage of annual forb, perennial forb, grass/forb, and alpine tundra vegetation types were combined into the "Other" category. Because each of these types made up a low percentage of the total inventory, they were grouped together as "Other" in that table; however, they were reported by individual condition class in table G-2. We have entered a change in the "Additions and Corrections for Chapter 3" to indicate that condition class was not determined on only 79% of the 28,287 acres.

4. The discussion on pages 178 through 179 of the draft RMP/EIS describes our method of estimating "natural erosion." The discussion on page 227, column 2, describes our postulation that grazing, because of its very wide extent in the planning area, contributes an estimated 75% of the total accelerated erosion. By definition, "accelerated erosion" is human-caused or induced.

   Our figures resulted from a combination of field data collected in the planning area in the 1950s, erosion measurement methodologies applied in 1986, literature sources on measured impacts on rangelands, and an evaluation formula similar to that used for the Grass Creek grazing EIS (USDI, BLM 1982).

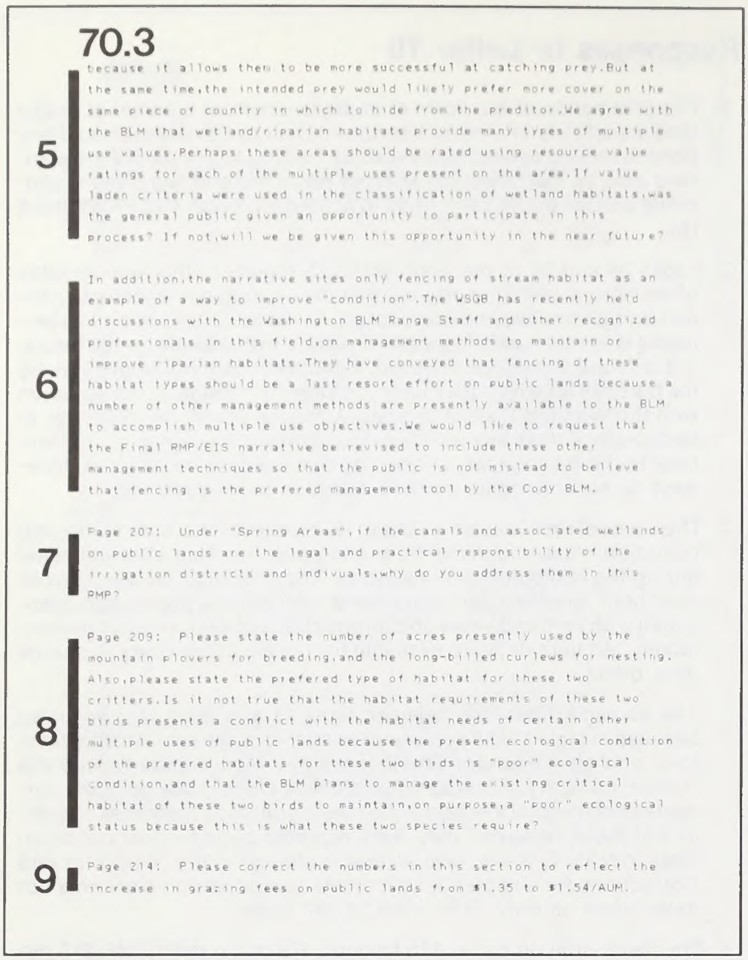
5. Stream habitat conditions were classified according to "Condition Classes for Streambanks and Shorelines" in the *Federal Register* of February 5, 1980, volume 45, pages 7889 through 7895). In general, the classification refers to what is preferred from and "overall" viewpoint consistent with multiple use management of or natural resources; for example, "good" condition is preferred because of the benefits it provides for all resource concerns, including wildlife habitat and livestock grazing forage.

6. The narrative referred to is part of the description of the "Affected Environment." As such, our intention was to provide one example of a riparian management technique, other than open free-choice grazing, that has been utilized to date in the planning area.

   A discussion as is suggested appears in appendix G, table G-3, which is reprinted in this final document. It should be understood that fencing does not necessarily mean that livestock would be eliminated. Rather, the intention is to control the amount of grazing pressure within the riparian areas.

7. The paragraph you mentioned may be misleading. The BLM has management authority over wetlands on public land. Further, this is part of the description of the affected environment, and lands other than those administered by the BLM can be affected by BLM actions.

8. Information on curlew and plover breeding and habitat requirements is contained in the Management Situation Analysis, available for review at the Cody Resource Area office. These birds are adapted to nesting on the ground among low growing vegetation that permits



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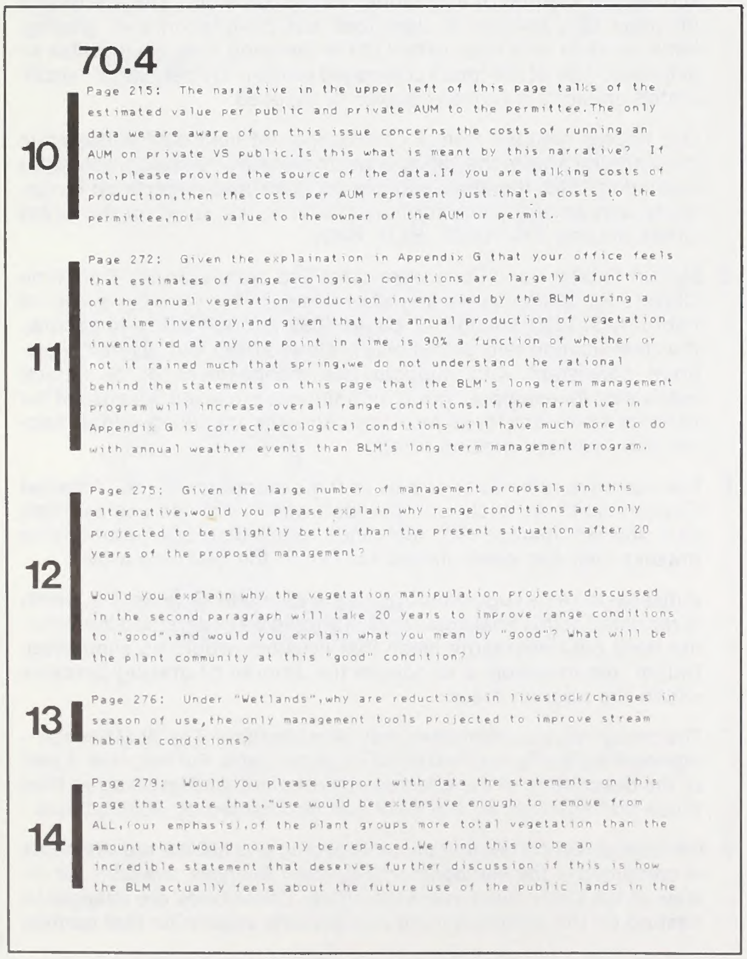
5 because it allows them to be more successful at catching prey.But at the same time,the intended prey would likely prefer more cover on the same piece of country in which to hide from the preditor.We agree with the BLM that wetland/riparian habitats provide many types of multiple use values.Perhaps these areas should be rated using resource value ratings for each of the multiple uses present on the area.If value laden criteria were used in the classification of wetland habitats,was the general public given an opportunity to participate in this process? If not,will we be given this opportunity in the near future?

6 In addition,the narrative sites only fencing of stream habitat as an example of a way to improve "condition".The WSGB has recently held discussions with the Washington BLM Range Staff and other recognized professionals in this field,on management methods to maintain or improve riparian habitats.They have conveyed that fencing of these habitat types should be a last resort effort on public lands because a number of other management methods are presently available to the BLM to accomplish multiple use objectives.We would like to request that the Final RMP/EIS narrative be revised to include these other management techniques so that the public is not mislead to believe that fencing is the prefered management tool by the Cody BLM.

7 Page 207: Under "Spring Areas",if the canals and associated wetlands on public lands are the legal and practical responsibility of the irrigation districts and indivuals,why do you address them in this RMP?

8 Page 209: Please state the number of acres presently used by the mountain plovers for breeding,and the long-billed curlews for nesting. Also,please state the prefered type of habitat for these two critters.Is it not true that the habitat requirements of these two birds presents a conflict with the habitat needs of certain other multiple uses of public lands because the present ecological condition of the prefered habitats for these two birds is "poor" ecological condition,and that the BLM plans to manage the existing critical habitat of these two birds to maintain,on purpose,a "poor" ecological status because this is what these two species require?

9 Page 214: Please correct the numbers in this section to reflect the increase in grazing fees on public lands from $1.35 to $1.54/AUM.



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10 Page 215: The narrative in the upper left of this page talks of the estimated value per public and private AUM to the permittee.The only data we are aware of on this issue concerns the costs of running an AUM on private VS public.Is this what is meant by this narrative? If not,please provide the source of the data.If you are talking costs of production,then the costs per AUM represent just that,a costs to the permittee,not a value to the owner of the AUM or permit.

11 Page 272: Given the explaination in Appendix G that your office feels that estimates of range ecological conditions are largely a function of the annual vegetation production inventoried by the BLM during a one time inventory,and given that the annual production of vegetation inventoried at any one point in time is 90% a function of whether or not it rained much that spring,we do not understand the rational behind the statements on this page that the BLM's long term management program will increase overall range conditions.If the narrative in Appendix G is correct,ecological conditions will have much more to do with annual weather events than BLM's long term management program.

12 Page 275: Given the large number of management proposals in this alternative,would you please explain why range conditions are only projected to be slightly better than the present situation after 20 years of the proposed management?

Would you explain why the vegetation manipulation projects discussed in the second paragraph will take 20 years to improve range conditions to "good",and would you explain what you mean by "good"? What will be the plant community at this "good" condition?

13 Page 276: Under "Wetlands",why are reductions in livestock/changes in season of use,the only management tools projected to improve stream habitat conditions?

14 Page 279: Would you please support with data the statements on this page that state that,"use would be extensive enough to remove from ALL,(our emphasis),of the plant groups more total vegetation than the amount that would normally be replaced.We find this to be an incredible statement that deserves further discussion if this is how the BLM actually feels about the future use of the public lands in the

good visibility. Chapman Bench offers this type of habitat. It is the intention of the BLM to maintain suitable nesting habitat in this area and, along with economic and environmental consideration, this may preclude certain range treatment options such as ripping or disking blue grama sod and seeding to species that would have more vertical structure.

9. We have entered a correction in the "Additions and Corrections for Chapter 3" to reflect the correct figures.

10. The narrative to which you refer pertains to the value of an AUM to the budget of a livestock operation.

11. Precipitation has a direct and profound influence on vegetation production of any site. At the same time, an individual plant's ability to utilize moisture from precipitation is influenced by the size and extent of its root system and whether sufficient aboveground tissue is available to utilize that moisture in the photosynthetic processes. The relative health and vigor of most rangeland plants can be negatively influenced by excessive disturbance of defoliation from any source, including grazing. Plants in low vigor generally have shallower and less extensive root systems than plants in high vigor and, hence, are less able to utilize available moisture or to resist the effects of drought. Positive changes in range condition, including production, can be accelerated through management that improves vigor. Climate factors alone may result in short-term improvement, but overall improvement in range condition over time usually does not occur unless applied management eliminates or reduces stress during critical vegetative periods. Also please see the response to comment 19 of this letter.

12. The figures presented represent an estimated improvement in range condition of at least one condition class on approximately 230,000 acres (28% of inventoried portion of the planning area).

    All projects cannot be implemented, completed, and benefits experienced in one year. It is estimated that implementation/completion would occur over a ten-year period. In addition, it is estimated that at least three years would be required for benefits to be realized, and this would occur over another ten-year period. It is also estimated to require at least 3 years to realize benefits and this would occur over another 10-year period. "Good" refers to range condition. It is estimated that the plant community would be 51% to 75% similar to the potential natural community for the particular range site improved and would produce total aboveground plant biomass within 75% of the amount expected for the site.

13. The section referred to involves the "Environmental Consequences" of the preferred alternative. The management actions proposed under this alternative are found in chapter 2 of the draft RMP/EIS and refers not only to changes in livestock numbers and seasons of use but also to reductions of other surface-disturbing activities such as oil and gas developement and ORV use. Other actions proposed may be found in chapter 2 on page 49. Also see response to comment 6 of this letter.

14. According to our data on forage production and use in each grazing allotment within these 144,000 acres, demand by all grazing animals exceeds acceptable levels. The data are available for inspection at the resource area office but is too extensive to present here.

15. We have removed to word *equal* in the text of chapter 4 of this document.

16. Thank you for pointing out this oversight. We have included the Wyoming State Grazing Board in the list of organizations consulted in this final EIS.

17. We have entered the information you request on the "Additions and Corrections for Appendixes."

18. The withdrawal review process is a requirement of law and has been completed to date. The existing stock driveway withdrawals were recommended for continuation for 20 years in the *Federal Register* of December 8, 1983. Also see response to comment 2 of this letter.

19. Drought conditions did not prevail during ecological site inventory activities as indicated by resource area precipitation data. Of 19 rain gauges located through the 5 to 9 inch precipitation zone in the resource area, at the time of inventory activities in the vicinity of each of these gauges, only five had received less than 100% of normal

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Cody area.

15 Page 280: At the bottom of the paragraph under "General Effects",how is it possible to logically assume that,"changes in AUM's would be accompanied by equal changes in related output revenues,personal income,and employment",when all existing studies we are aware of state that the relationship between a loss of public AUM's and the variables mentioned in this narrative is exponential,not linear?

16 Page 284/285: Since early in 1987,the WSGB has been very much involved in ongoing discussions with the Cody BLM office about the contents of this RMP/EIS.But we can not find our organization amoung the list of those with whom you have consulted.There is currently a discussion within the WSGB as to whether or not we should consider this oversite a compliment or a insult.Please advise.

17 Page 297: Under "Livestock Grazing Management",please either include or reference the specific policies used to guide this program;ie;MEMO numbers or manuals on riparian management,range improvements, monitoring,inventory,etc..

18 Page 311: Under the section on stock driveways,our comment for pages 34/35 apply here as well.

19 Page 314: As you are aware,the WSGB is in sharp disagreement with the BLM range staff over a number of technical issues in this RMP.We will not take the time or space here to completly restate our problems with the BLM's procedures of interpretation of inventory data collected by the Ecological Site Inventory method.As an organization,we do plan to continue to try and work with the range staff in Cody and elsewhere in the BLM,SCS,and Academia,to correct what we feel are serious problems with respect to the information in this RMP/EIS on ecological and forage conditions.

We will state for the record,what we feel is the basis for the sharp difference of opinion between the WSGB and the Cody BLM on the issue of the interpretation of BLM inventory information in this Area.

In January of 1987,the WSGB was told by the Cody range staff that they planned to use the winter office work period to review the data

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19 collected from their inventory,and to reduce the ecological conditions found in the inventory by either one or two classes if the production estimates from the inventory were below that recommended by the SCS guides.The reason we were given for this action was that they felt that the livestock stocking rates recommended by the SCS guides were too high for the amount of forage production found during the one-time inventory,and that the "bumping down" procedure was their way to reconcile their opinion of stocking rates bases on the one-time production estimates with the stocking rates recommended by the SCS guides.We agreed with their assessment of the effects of the drought on short term forage production,but did not agree that it was necessary,or professionally correct,to use production estimates alone to unilaterly change the range conditions collected in the field. Our recommendation at that time is the same as it is today,which is to leave the ecological conditions the same as those found by the inventory,but to state in the RMP/EIS that it was their professional judgement that recent drought conditions had reduced forage production to the point where the stocking rates in the SCS guides were too high for the present situation,and that BLM monitoring procedures would be used to determine whether any long term changes in carrying capacity were justified.We also recommended that since they were using an SCS method of inventory,that they should ask the SCS for their expert assistance in the interpretation of the data.

We have contacted a large number of people of stature in the Range profession.Without exception,they share our opinion that the procedure in the SCS Range Handbook which allows for a reduction in ecological range conditions from that originally detemined from an inventory is very strictly a field procedure to be used at the time of inventory by people professionally competent to use this procedure.It is NOT an office procedure to be generally applied to an entire Resource area over the winter period of work.
The WSGB feels that because the conditions found in the field were reduced using procedures inconsistant with the guidelines in the SCS National Range Handbook,that the Tables in Appendix G underestimate the real situation with respect to the condition of the range in the Cody Area.

20 We request that the Tables in this RMP that deal with ecologic or forage conditions be changed to reflect the data collected in the

(average) precipitation. Only two of these five gauges received less than 90% of normal precipitation and 12 gauges measured from 107% to 138% percent of normal precipitation.

Professional judgments of the vigor of the plants and estimates of production of certain range sites within the Cody planning area indicate that "all is not well" on these sites. To point out this potential problem, the Cody Resource Area chose to use as a planning tool a procedure described in the *National Range Handbook: BLM Manual Handbook H-4410-1, section 305.5(a)*. We used the following production criteria in addition to species composition to determine condition ratings on these sites: (1) if production was greater than 75% of potential, there was no reduction from the rating based on species composition alone; (2) if production was greater than 50% and less than 75% of potential, the condition rating was lowered one class; and (3) if production was less than 50% of potential, the condition was lowered two classes. Monitoring procedures, as discussed in appendix G, will tell us whether these concerns are valid and whether stocking rate adjustments are necessary.

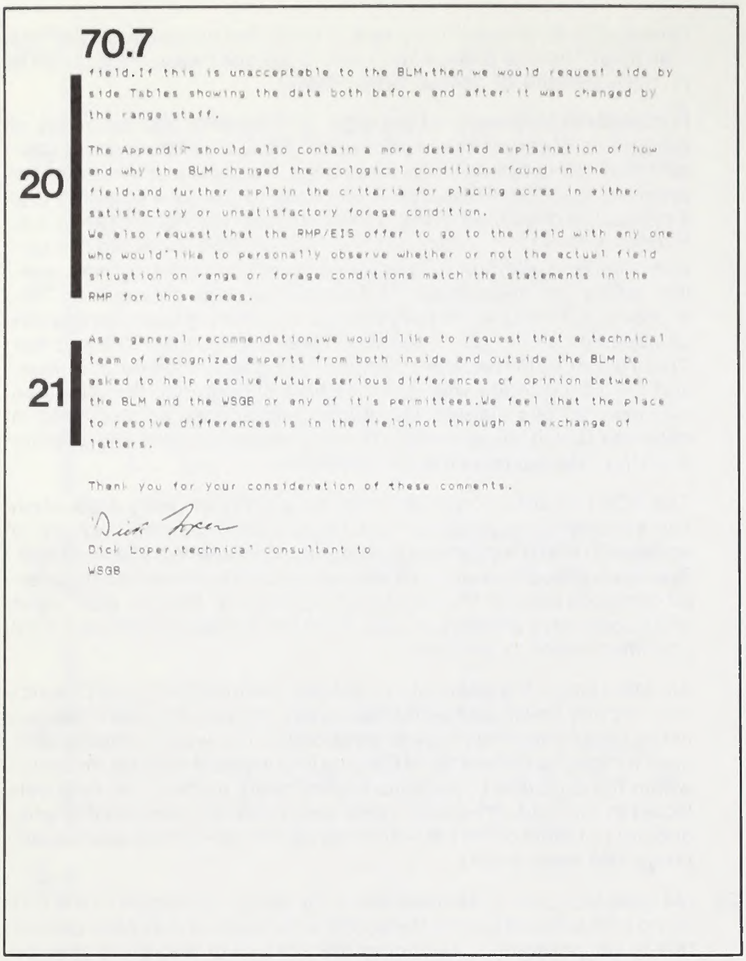
The SCS has been consulted as to the priority of using production and species composition to rate range condition, and they are in agreement that the procedure used is appropriate as a planning tool. Species composition alone should not be used to determine the overall condition class of the vegetation community. Overall, plant vigor and subsequent production also must be considered before a final condition rating is assigned.

All data (range site delineation, species composition, total production, ground cover, and vegetation type) on each site was collected in the field by trained range professionals. The winter months were used to compile the results of the data into a usable form for inclusion within the document. No "adjustments" were made to the data collected in the field. Production data was, however, compared to production potential of the individual site as identified in the appropriate range site descriptions.

20. We have included an explanation of the above procedure in the text along with a discussion on the possible factors that may have caused this lower production, including the possibility that these may be entirely different sites with naturally low production potential.

The definition of forage condition as it pertains to table G-1 has been added to the Glossary.

21. We would like to invite the Wyoming State Grazing Board to a field tour of the area. Please contact the Cody Resource Area staff to arrange a date and time. Any permittee or other member of the public concerned with livestock grazing in this area is also invited.



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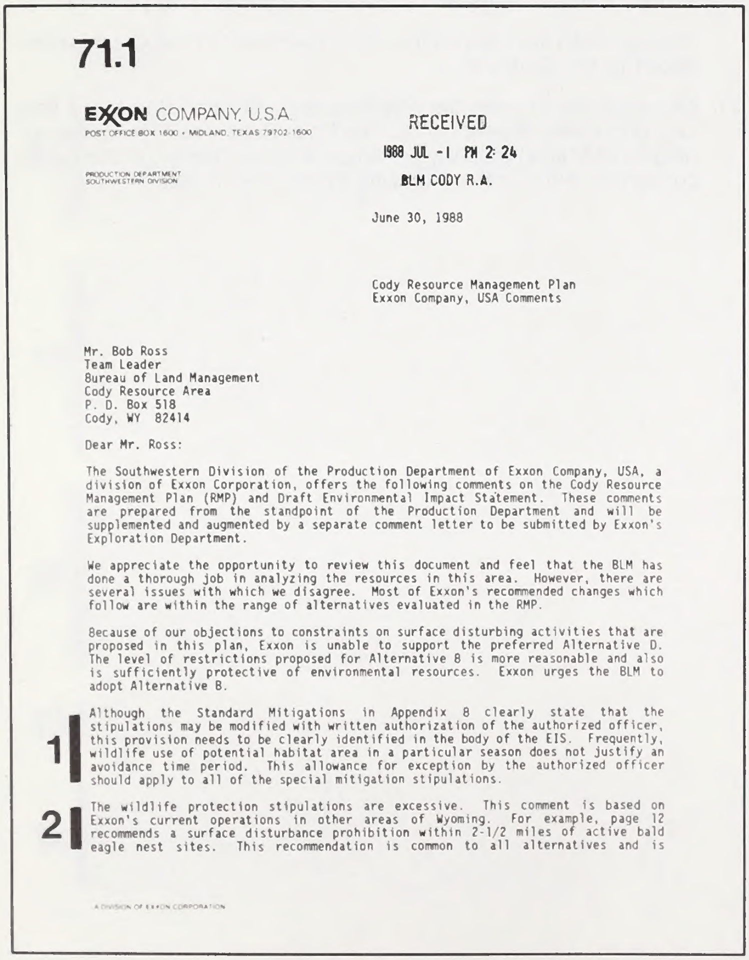
field.If this is unacceptable to the BLM,then we would request side by side Tables showing the data both before and after it was changed by the range staff.

20 The Appendix should also contain a more detailed explaination of how and why the BLM changed the ecological conditions found in the field,and further explain the criteria for placing acres in either satisfactory or unsatisfactory forage condition.
We also request that the RMP/EIS offer to go to the field with any one who would like to personally observe whether or not the actual field situation on range or forage conditions match the statements in the RMP for those areas.

21 As a general recommendation,we would like to request that a technical team of recognized experts from both inside and outside the BLM be asked to help resolve future serious differences of opinion between the BLM and the WSGB or any of it's permittees.We feel that the place to resolve differences is in the field,not through an exchange of letters.

Thank you for your consideration of these comments.

Dick Loper,technical consultant to
WSGB



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EXXON COMPANY, U.S.A.
POST OFFICE BOX 1600 • MIDLAND, TEXAS 79702-1600

PRODUCTION DEPARTMENT
SOUTHWESTERN DIVISION

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BLM CODY R.A.

June 30, 1988

Cody Resource Management Plan
Exxon Company, USA Comments

Mr. Bob Ross
Team Leader
Bureau of Land Management
Cody Resource Area
P. D. Box 518
Cody, WY 82414

Dear Mr. Ross:

The Southwestern Division of the Production Department of Exxon Company, USA, a division of Exxon Corporation, offers the following comments on the Cody Resource Management Plan (RMP) and Draft Environmental Impact Statement. These comments are prepared from the standpoint of the Production Department and will be supplemented and augmented by a separate comment letter to be submitted by Exxon's Exploration Department.

We appreciate the opportunity to review this document and feel that the BLM has done a thorough job in analyzing the resources in this area. However, there are several issues with which we disagree. Most of Exxon's recommended changes which follow are within the range of alternatives evaluated in the RMP.

Because of our objections to constraints on surface disturbing activities that are proposed in this plan, Exxon is unable to support the preferred Alternative D. The level of restrictions proposed for Alternative 8 is more reasonable and also is sufficiently protective of environmental resources. Exxon urges the BLM to adopt Alternative B.

1 Although the Standard Mitigations in Appendix 8 clearly state that the stipulations may be modified with written authorization of the authorized officer, this provision needs to be clearly identified in the body of the EIS. Frequently, wildlife use of potential habitat area in a particular season does not justify an avoidance time period. This allowance for exception by the authorized officer should apply to all of the special mitigation stipulations.

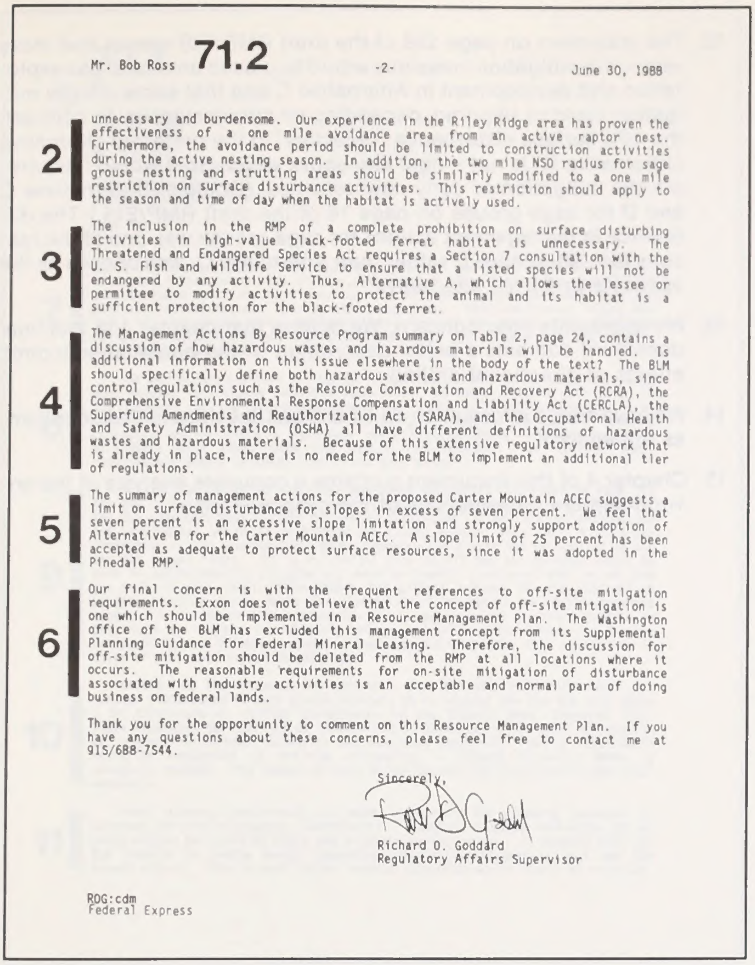
2 The wildlife protection stipulations are excessive. This comment is based on Exxon's current operations in other areas of Wyoming. For example, page 12 recommends a surface disturbance prohibition within 2-1/2 miles of active bald eagle nest sites. This recommendation is common to all alternatives and is

A DIVISION OF EXXON CORPORATION

Responses to Letter 71

1. The BLM must consider all proposed actions on their own merits within the context of general management guidance and direction set forth in the RMP/EIS. This would allow exceptions to mitigative measures that might not be necessary in individual circumstances or at given times. The responsibility to consider proposed actions is standard operating procedure and does not need to be repeated throughout the RMP/EIS.
2. Please see the response to comment 7 of letter 56.

   To clarify what is stated in the draft RMP/EIS and in the proposed plan, the 2-mile restriction on surface-disturbing activities in sage grouse habitat areas is a seasonal restriction, not an NSO restriction. The area around raptor nests proposed for seasonal restrictions on surface-disturbing activities, and for avoidance of new rights-of-way, is ¾ mile, not 1 mile.
3. Please see the response to comment 8 of letter 56.
4. The section on "Additions and Corrections for Chapter 3" contains further discussion on hazardous materials.
5. Please see the response to comment 1 of letter 22.
6. Please see the response to comment 5 of letter 58.



Mr. Bob Ross **71.2** -2- June 30, 1988

2 unnecessary and burdensome. Our experience in the Riley Ridge area has proven the effectiveness of a one mile avoidance area from an active raptor nest. Furthermore, the avoidance period should be limited to construction activities during the active nesting season. In addition, the two mile NSO radius for sage grouse nesting and strutting areas should be similarly modified to a one mile restriction on surface disturbance activities. This restriction should apply to the season and time of day when the habitat is actively used.

3 The inclusion in the RMP of a complete prohibition on surface disturbing activities in high-value black-footed ferret habitat is unnecessary. The Threatened and Endangered Species Act requires a Section 7 consultation with the U. S. Fish and Wildlife Service to ensure that a listed species will not be endangered by any activity. Thus, Alternative A, which allows the lessee or permittee to modify activities to protect the animal and its habitat is a sufficient protection for the black-footed ferret.

4 The Management Actions By Resource Program summary on Table 2, page 24, contains a discussion of how hazardous wastes and hazardous materials will be handled. Is additional information on this issue elsewhere in the body of the text? The BLM should specifically define both hazardous wastes and hazardous materials, since control regulations such as the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), the Superfund Amendments and Reauthorization Act (SARA), and the Occupational Health and Safety Administration (OSHA) all have different definitions of hazardous wastes and hazardous materials. Because of this extensive regulatory network that is already in place, there is no need for the BLM to implement an additional tier of regulations.

5 The summary of management actions for the proposed Carter Mountain ACEC suggests a limit on surface disturbance for slopes in excess of seven percent. We feel that seven percent is an excessive slope limitation and strongly support adoption of Alternative B for the Carter Mountain ACEC. A slope limit of 25 percent has been accepted as adequate to protect surface resources, since it was adopted in the Pinedale RMP.

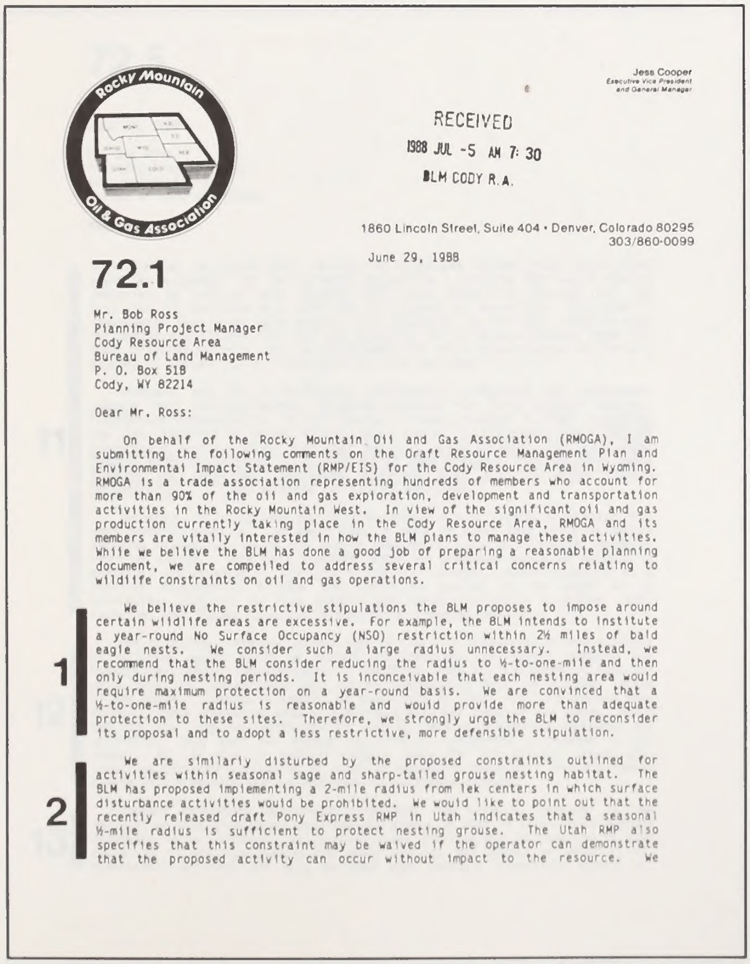
6 Our final concern is with the frequent references to off-site mitigation requirements. Exxon does not believe that the concept of off-site mitigation is one which should be implemented in a Resource Management Plan. The Washington office of the BLM has excluded this management concept from its Supplemental Planning Guidance for Federal Mineral Leasing. Therefore, the discussion for off-site mitigation should be deleted from the RMP at all locations where it occurs. The reasonable requirements for on-site mitigation of disturbance associated with industry activities is an acceptable and normal part of doing business on federal lands.

Thank you for the opportunity to comment on this Resource Management Plan. If you have any questions about these concerns, please feel free to contact me at 915/688-7544.

Sincerely,

Richard O. Goddard
Regulatory Affairs Supervisor

ROG:cdm
Federal Express



Rocky Mountain Oil & Gas Association

Jess Cooper
Executive Vice President and General Manager

1860 Lincoln Street, Suite 404 • Denver, Colorado 80295
303/860-0099

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BLM CODY R.A.

June 29, 1988

72.1

Mr. Bob Ross
Planning Project Manager
Cody Resource Area
Bureau of Land Management
P. O. Box 518
Cody, WY 82214

Dear Mr. Ross:

On behalf of the Rocky Mountain Oil and Gas Association (RMOGA), I am submitting the following comments on the Draft Resource Management Plan and Environmental Impact Statement (RMP/EIS) for the Cody Resource Area in Wyoming. RMOGA is a trade association representing hundreds of members who account for more than 90% of the oil and gas exploration, development and transportation activities in the Rocky Mountain West. In view of the significant oil and gas production currently taking place in the Cody Resource Area, RMOGA and its members are vitally interested in how the BLM plans to manage these activities. While we believe the BLM has done a good job of preparing a reasonable planning document, we are compelled to address several critical concerns relating to wildlife constraints on oil and gas operations.

1 We believe the restrictive stipulations the BLM proposes to impose around certain wildlife areas are excessive. For example, the BLM intends to institute a year-round No Surface Occupancy (NSO) restriction within 2½ miles of bald eagle nests. We consider such a large radius unnecessary. Instead, we recommend that the BLM consider reducing the radius to ½-to-one-mile and then only during nesting periods. It is inconceivable that each nesting area would require maximum protection on a year-round basis. We are convinced that a ½-to-one-mile radius is reasonable and would provide more than adequate protection to these sites. Therefore, we strongly urge the BLM to reconsider its proposal and to adopt a less restrictive, more defensible stipulation.

2 We are similarly disturbed by the proposed constraints outlined for activities within seasonal sage and sharp-tailed grouse nesting habitat. The BLM has proposed implementing a 2-mile radius from lek centers in which surface disturbance activities would be prohibited. We would like to point out that the recently released draft Pony Express RMP in Utah indicates that a seasonal ½-mile radius is sufficient to protect nesting grouse. The Utah RMP also specifies that this constraint may be waived if the operator can demonstrate that the proposed activity can occur without impact to the resource. We

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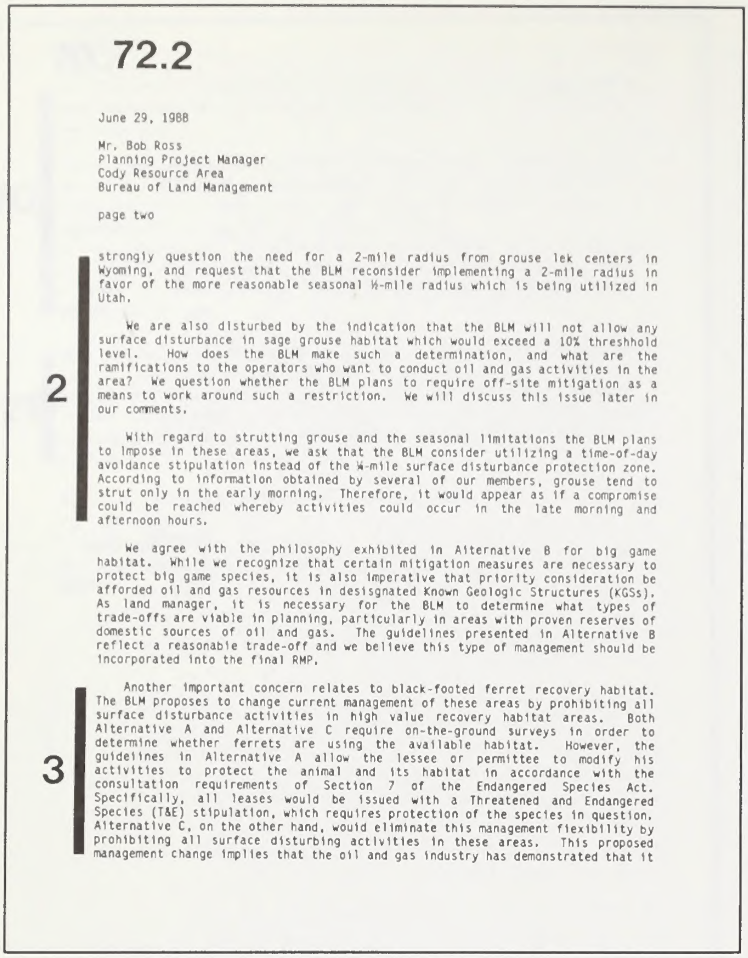
Responses to Letter 72

1. Please see the response to comment 7 of letter 56.
2. Please see the responses to comment 7 of letter 56 and comment 2 of letter 71.
3. Please see the response to comment 8 of letter 56.
4. Please see the response to comment 7 of letter 56.
5. Please see the response to comment 1 of letter 56.
6. The statement on page 36 of the draft RMP/EIS to which you refer is misleading. Under "Anticipated Levels of Activity," the document should indicate that geophysical exploration would involve 300 miles of seismic lines per year. We have added this information to chapter 2 of this document. However, for purposes of assessing surface disturbances (see table 26, page 228 of the draft RMP/EIS), 1 acre of surface disturbance has been assumed for each mile of seismic line. The actual level of impacts from these activities would depend on the method used. Some methods have negligible impacts; others have more significant ones. Effects could occur at the rate of 1 acre per mile if several trucks drove across country along a seismic line, compacting soils and disturbing vegetation.
7. Please see the response to comment 3 of letter 56.
8. The section on "Additions and Corrections for Chapter 3" in this document contains additional information on hazardous materials.
9. Please see the response to comment 1 of letter 22.
10. Please see the responses to comment 6 of letter 56 and comment 5 of letter 58.
11. Please see the response to comment 5 of letter 58.



72.2

June 29, 1988

Mr. Bob Ross
Planning Project Manager
Cody Resource Area
Bureau of Land Management

page two

2 strongly question the need for a 2-mile radius from grouse lek centers in Wyoming, and request that the BLM reconsider implementing a 2-mile radius in favor of the more reasonable seasonal ½-mile radius which is being utilized in Utah.

We are also disturbed by the indication that the BLM will not allow any surface disturbance in sage grouse habitat which would exceed a 10% threshhold level. How does the BLM make such a determination, and what are the ramifications to the operators who want to conduct oil and gas activities in the area? We question whether the BLM plans to require off-site mitigation as a means to work around such a restriction. We will discuss this issue later in our comments.

With regard to strutting grouse and the seasonal limitations the BLM plans to impose in these areas, we ask that the BLM consider utilizing a time-of-day avoidance stipulation instead of the ¼-mile surface disturbance protection zone. According to information obtained by several of our members, grouse tend to strut only in the early morning. Therefore, it would appear as if a compromise could be reached whereby activities could occur in the late morning and afternoon hours.

We agree with the philosophy exhibited in Alternative B for big game habitat. While we recognize that certain mitigation measures are necessary to protect big game species, it is also imperative that priority consideration be afforded oil and gas resources in desisgnated Known Geologic Structures (KGSs). As land manager, it is necessary for the BLM to determine what types of trade-offs are viable in planning, particularly in areas with proven reserves of domestic sources of oil and gas. The guidelines presented in Alternative B reflect a reasonable trade-off and we believe this type of management should be incorporated into the final RMP.

3 Another important concern relates to black-footed ferret recovery habitat. The BLM proposes to change current management of these areas by prohibiting all surface disturbance activities in high value recovery habitat areas. Both Alternative A and Alternative C require on-the-ground surveys in order to determine whether ferrets are using the available habitat. However, the guidelines in Alternative A allow the lessee or permittee to modify his activities to protect the animal and its habitat in accordance with the consultation requirements of Section 7 of the Endangered Species Act. Specifically, all leases would be issued with a Threatened and Endangered Species (T&E) stipulation, which requires protection of the species in question. Alternative C, on the other hand, would eliminate this management flexibility by prohibiting all surface disturbing activities in these areas. This proposed management change implies that the oil and gas industry has demonstrated that it

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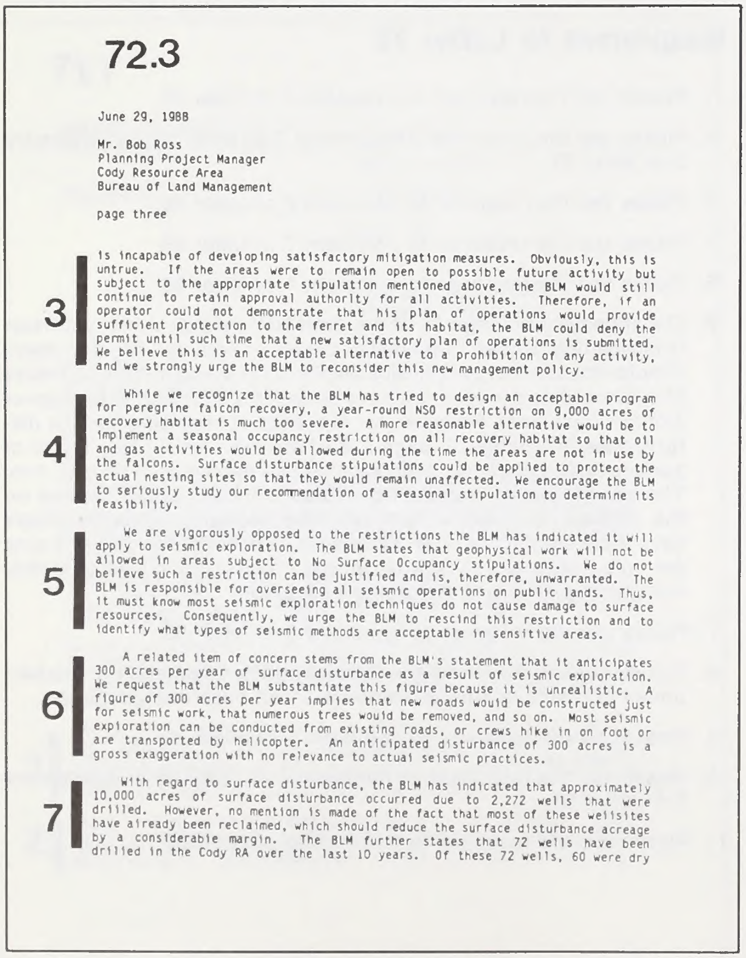

72.3

June 29, 1988

Mr. Bob Ross
Planning Project Manager
Cody Resource Area
Bureau of Land Management

page three

3 is incapable of developing satisfactory mitigation measures. Obviously, this is untrue. If the areas were to remain open to possible future activity but subject to the appropriate stipulation mentioned above, the BLM would still continue to retain approval authority for all activities. Therefore, if an operator could not demonstrate that his plan of operations would provide sufficient protection to the ferret and its habitat, the BLM could deny the permit until such time that a new satisfactory plan of operations is submitted. We believe this is an acceptable alternative to a prohibition of any activity, and we strongly urge the BLM to reconsider this new management policy.

4 While we recognize that the BLM has tried to design an acceptable program for peregrine falcon recovery, a year-round NSO restriction on 9,000 acres of recovery habitat is much too severe. A more reasonable alternative would be to implement a seasonal occupancy restriction on all recovery habitat so that oil and gas activities would be allowed during the time the areas are not in use by the falcons. Surface disturbance stipulations could be applied to protect the actual nesting sites so that they would remain unaffected. We encourage the BLM to seriously study our recommendation of a seasonal stipulation to determine its feasibility.

5 We are vigorously opposed to the restrictions the BLM has indicated it will apply to seismic exploration. The BLM states that geophysical work will not be allowed in areas subject to No Surface Occupancy stipulations. We do not believe such a restriction can be justified and is, therefore, unwarranted. The BLM is responsible for overseeing all seismic operations on public lands. Thus, it must know most seismic exploration techniques do not cause damage to surface resources. Consequently, we urge the BLM to rescind this restriction and to identify what types of seismic methods are acceptable in sensitive areas.

6 A related item of concern stems from the BLM's statement that it anticipates 300 acres per year of surface disturbance as a result of seismic exploration. We request that the BLM substantiate this figure because it is unrealistic. A figure of 300 acres per year implies that new roads would be constructed just for seismic work, that numerous trees would be removed, and so on. Most seismic exploration can be conducted from existing roads, or crews hike in on foot or are transported by helicopter. An anticipated disturbance of 300 acres is a gross exaggeration with no relevance to actual seismic practices.

7 With regard to surface disturbance, the BLM has indicated that approximately 10,000 acres of surface disturbance occurred due to 2,272 wells that were drilled. However, no mention is made of the fact that most of these wellsites have already been reclaimed, which should reduce the surface disturbance acreage by a considerable margin. The BLM further states that 72 wells have been drilled in the Cody RA over the last 10 years. Of these 72 wells, 60 were dry

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12. The statement on page 258 of the draft RMP/EIS means that more restrictive mitigation measures would be placed on oil and gas exploration and development in Alternative C and that some off-site mitigation *could be* required, depending on circumstances. In contrast, the 10% surface disturbance "objective" in the preferred alternative (Alternative D) is not a rigid line above which BLM would "require" off-site mitigation or deny new activities. (Compare Alternatives C and D for sage grouse on page 16 of the draft RMP/EIS.) The difference in management actions for sage grouse was one of the reasons that Alternative D rather than Alternative C, was chosen as the agency's preferred alternative.
13. We appreciate your concern. We believe that chapter 4 in this final document contains a better description of the potential economic effects of directional drilling.
14. We have added information on oil and gas activities to this document as appendix K.
15. Chapter 4 of this document contains a complete analysis of the environmental consequences of the proposed plan.

72.4

June 29, 1988

Mr. Bob Ross
Planning Project Manager
Cody Resource Area
Bureau of Land Management

page four

7 holes and one was shut-in. It would seem that all but 11 of these wells should have been reclaimed by now, leaving less than 44 acres disturbed. Even though some of these wells may have resulted in field development, most wellsites are partially reclaimed when they go into production. This would also reduce the level of disturbance which resulted during initial operations. The BLM must revise its data to reflect the reclamation which has already been achieved in the Cody Resource Area.

8 The guidelines depicted on Page 24 for hazardous materials are unclear as to what exactly constitutes hazardous materials. We could find no definition in the glossary of the planning document, yet this is vital information. We recommend that the BLM identify its statutory reference. The State of Wyoming currently has in place a hazardous waste program which is administered in accordance with OSHA, SARA and CERCLA requirements. We believe these requirements should be identified in the plan as well.

9 We are also disturbed with the operating parameters described on Page 111 for the Carter Mountain Proposed Area of Critical Environmental Concern (ACEC). The BLM indicates that surface disturbing activities for oil and gas exploration and development would be prohibited on slopes greater than 7%. A 7% grade limitation is the same used for paved highways and should not be applied to oil and gas access roads. It is our belief that an oil and gas operator would be able to satisfactorily mitigate any adverse impacts associated with an oil and gas well in this area. Even though the primary purpose for the ACEC is to protect fragile soils found in alpine tundra terrain, the BLM's proposed restriction is unwarranted because the technology required to safely operate in this type of terrain is currently being used with great success in Alaska. Consequently, we strongly recommend that the BLM eliminate this constraint in favor of less restrictive stipulations.

10 Similar to the concerns we expressed with the 10% threshhold level for surface disturbance in sage grouse habitat, it is unclear how the BLM will apply a 5% threshhold of surface disturbance in the Chapman Bench Proposed ACEC. Would companies be required to reclaim old disturbances which have no relation to proposed activities before an APD would be approved? Such a requirement would be tantamount to off-site mitigation, a concept to which RMOGA is adamantly opposed. The intent of this guideline must be clarified in the final document.

11 Other numerous references are made throughout the planning document to proposed off-site mitigation requirements. Examples of these references can be found within the texts on ACECs and wildlife habitat areas. It appears that the BLM intends to coerce energy companies into doing reclamation work the BLM cannot afford. This is most unfair because companies would likely be required,

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72.5

June 29, 1988

Mr. Bob Ross
Planning Project Manager
Cody Resource Area
Bureau of Land Management

page five

11 at a minimum, to double their reclamation costs due to additional sites which would be reclaimed. We are strongly opposed to a practice that would require companies to reclaim more acreage than that which is required for the site-specific operation as a condition for approval of operations. This type of requirement also poses very serious legal questions for the BLM. Despite what the public may believe, oil and gas companies do not have unlimited funds for their drilling projects, and the requirement for off-site mitigation may force a company to abandon its drilling plans for such an area.

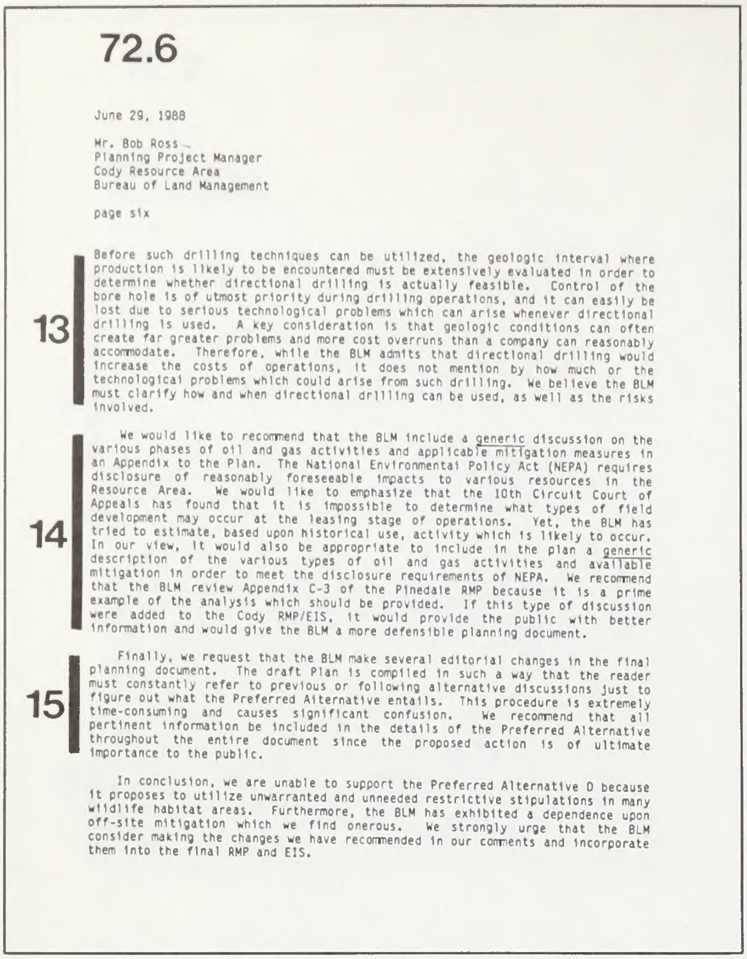
Moreover, the BLM in Washington specifically eliminated this management concept from its Supplemental Planning Guidance for Fluid Mineral Leasing. Instruction Memorandum No. 87-519, Change 1, dated November 4, 1987, rescinded the last paragraph of IM No. 87-519, which stated "...mitigation might involve enhancing a resource other than that which is being affected. It also might involve bringing benefits to a location at some distance from the site where impacts are occurring, including locations that are not under Bureau jurisdiction...". (See attached Instruction Memoranda.)

Therefore, it is unclear why the Cody Resource Area intends to utilize this controversial practice. We would like to make it clear that while we oppose off-site mitigation, we do not oppose reasonable, related mitigation measures required onsite. This is a standard operating procedure which we believe is practical and necessary. Off-site mitigation, however, places companies at a distinct disadvantage because they could be subject to the whims of an overzealous District or Area Manager who wants previously disturbed lands reclaimed even though they have no bearing on proposed activity.

12 The following statement on Page 258 of the Plan, "Approval of new activity on existing leases would be subject to additional mitigating measures and habitat development requirements...", conflicts with the statement on Page 297 which says, "...restrictions must not be inconsistent with the original intent of the lease." (emphasis added) We would like to point out that lessees have certain rights granted to them in accordance with the terms of the lease. While the BLM may have the authority to require certain mitigation measures for activities, they must not exceed the original conditions stipulated in the lease. We see this as another example where the BLM appears intent upon requiring off-site mitigation or other unreasonable measures. The BLM should delete this statement and all reference to such requirements.

13 Another disturbing occurrence throughout the planning document is the implication that directional drilling can always be used in areas where surface occupancy is not allowed. While directional drilling may be feasible in some areas, it is not the panacea the public or the BLM appear to think it is. Directional drilling can only be used when geologic conditions permit it.

72.6



June 29, 1988

Mr. Bob Ross
Planning Project Manager
Cody Resource Area
Bureau of Land Management

page six

13 Before such drilling techniques can be utilized, the geologic interval where production is likely to be encountered must be extensively evaluated in order to determine whether directional drilling is actually feasible. Control of the bore hole is of utmost priority during drilling operations, and it can easily be lost due to serious technological problems which can arise whenever directional drilling is used. A key consideration is that geologic conditions can often create far greater problems and more cost overruns than a company can reasonably accommodate. Therefore, while the BLM admits that directional drilling would increase the costs of operations, it does not mention by how much or the technological problems which could arise from such drilling. We believe the BLM must clarify how and when directional drilling can be used, as well as the risks involved.

14 We would like to recommend that the BLM include a generic discussion on the various phases of oil and gas activities and applicable mitigation measures in an Appendix to the Plan. The National Environmental Policy Act (NEPA) requires disclosure of reasonably foreseeable impacts to various resources in the Resource Area. We would like to emphasize that the 10th Circuit Court of Appeals has found that it is impossible to determine what types of field development may occur at the leasing stage of operations. Yet, the BLM has tried to estimate, based upon historical use, activity which is likely to occur. In our view, it would also be appropriate to include in the plan a generic description of the various types of oil and gas activities and available mitigation in order to meet the disclosure requirements of NEPA. We recommend that the BLM review Appendix C-3 of the Pinedale RMP because it is a prime example of the analysis which should be provided. If this type of discussion were added to the Cody RMP/EIS, it would provide the public with better information and would give the BLM a more defensible planning document.

15 Finally, we request that the BLM make several editorial changes in the final planning document. The draft Plan is compiled in such a way that the reader must constantly refer to previous or following alternative discussions just to figure out what the Preferred Alternative entails. This procedure is extremely time-consuming and causes significant confusion. We recommend that all pertinent information be included in the details of the Preferred Alternative throughout the entire document since the proposed action is of ultimate importance to the public.

In conclusion, we are unable to support the Preferred Alternative D because it proposes to utilize unwarranted and unneeded restrictive stipulations in many wildlife habitat areas. Furthermore, the BLM has exhibited a dependence upon off-site mitigation which we find onerous. We strongly urge that the BLM consider making the changes we have recommended in our comments and incorporate them into the final RMP and EIS.

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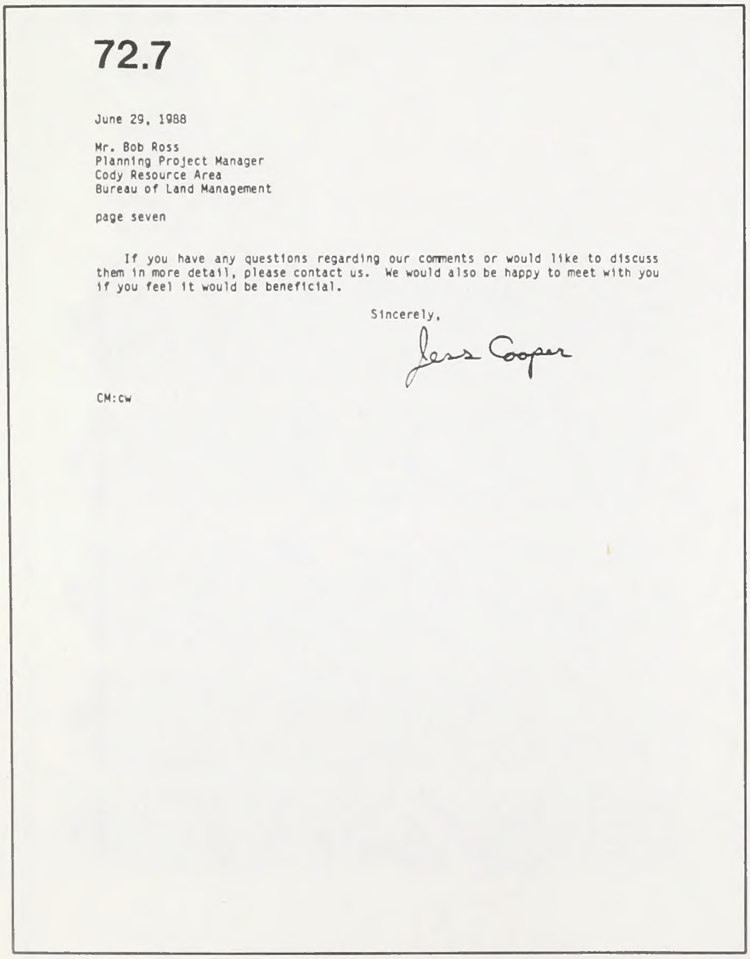


June 29, 1988

Mr. Bob Ross
Planning Project Manager
Cody Resource Area
Bureau of Land Management

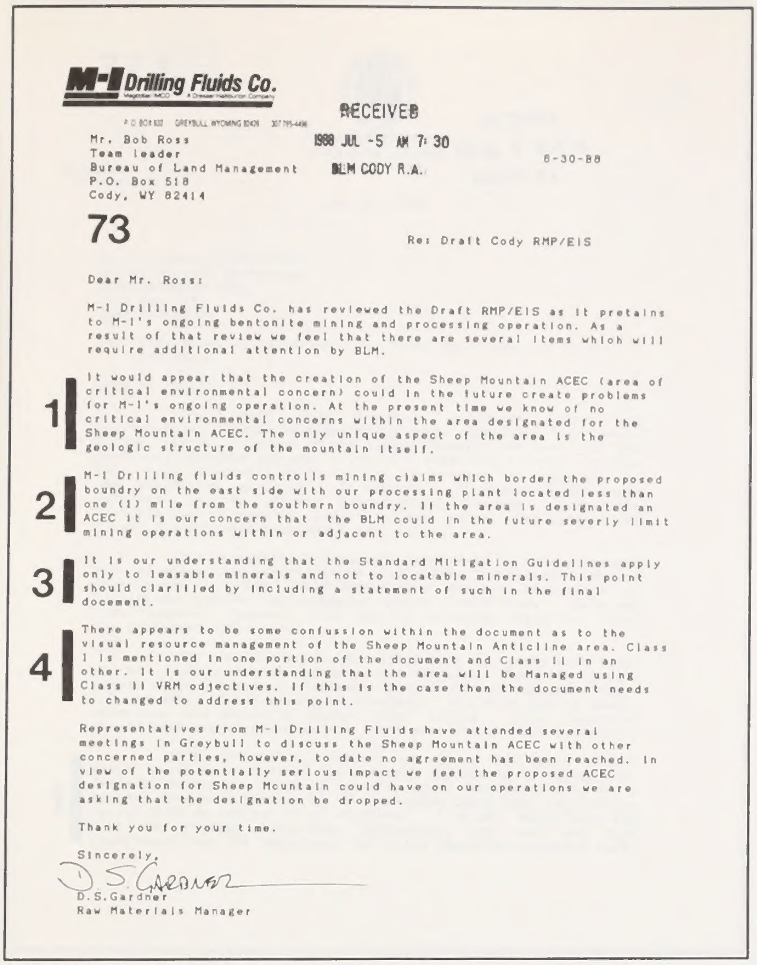
page seven

If you have any questions regarding our comments or would like to discuss them in more detail, please contact us. We would also be happy to meet with you if you feel it would be beneficial.

Sincerely,

Jess Cooper

CM:cw



M-I Drilling Fluids Co.
Magcobar IMCO A Dresser/Halliburton Company
P.O. BOX 832 GREYBULL, WYOMING 82426 307 765-4496

RECEIVED
1988 JUL -5 AM 7:30
BLM CODY R.A.

8-30-88

Mr. Bob Ross
Team leader
Bureau of Land Management
P.O. Box 518
Cody, WY 82414

73

Re: Draft Cody RMP/EIS

Dear Mr. Ross:

M-I Drilling Fluids Co. has reviewed the Draft RMP/EIS as it pretains to M-I's ongoing bentonite mining and processing operation. As a result of that review we feel that there are several items which will require additional attention by BLM.

1 It would appear that the creation of the Sheep Mountain ACEC (area of critical environmental concern) could in the future create problems for M-I's ongoing operation. At the present time we know of no critical environmental concerns within the area designated for the Sheep Mountain ACEC. The only unique aspect of the area is the geologic structure of the mountain itself.

2 M-I Drilling fluids controlls mining claims which border the proposed boundry on the east side with our processing plant located less than one (1) mile from the southern boundry. If the area is designated an ACEC it is our concern that the BLM could in the future severly limit mining operations within or adjacent to the area.

3 It is our understanding that the Standard Mitigation Guidelines apply only to leasable minerals and not to locatable minerals. This point should clarified by including a statement of such in the final docement.

4 There appears to be some confussion within the document as to the visual resource management of the Sheep Mountain Anticline area. Class I is mentioned in one portion of the document and Class II in an other. It is our understanding that the area will be Managed using Class II VRM objectives. If this is the case then the document needs to changed to address this point.

Representatives from M-I Drilling Fluids have attended several meetings in Greybull to discuss the Sheep Mountain ACEC with other concerned parties, however, to date no agreement has been reached. In view of the potentially serious impact we feel the proposed ACEC designation for Sheep Mountain could have on our operations we are asking that the designation be dropped.

Thank you for your time.

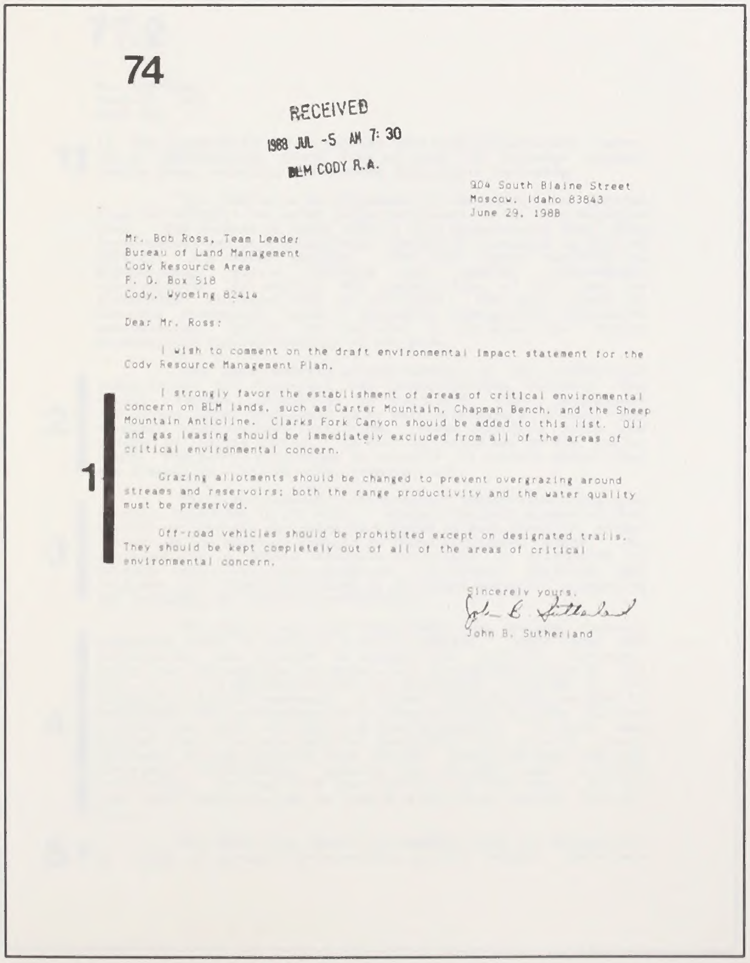
Sincerely,

D. S. Gardner

D.S.Gardner
Raw Materials Manager

Responses to Letter 73

1. Please see the response to comment 1 of letter 20.
2. Please see the responses to comments 2 and 3 of letter 20.
3. Please see the response to comment 4 of letter 20.
4. You are correct. We have corrected the error in the "Additions and Corrections for Chapter 4" in this document.



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RECEIVED
1988 JUL -5 AM 7:30
BLM CODY R.A.

904 South Blaine Street
Moscow, Idaho 83843
June 29, 1988

Mr. Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P. O. Box 518
Cody, Wyoming 82414

Dear Mr. Ross:

I wish to comment on the draft environmental impact statement for the Cody Resource Management Plan.

1 I strongly favor the establishment of areas of critical environmental concern on BLM lands, such as Carter Mountain, Chapman Bench, and the Sheep Mountain Anticline. Clarks Fork Canyon should be added to this list. Oil and gas leasing should be immediately excluded from all of the areas of critical environmental concern.

Grazing allotments should be changed to prevent overgrazing around streams and reservoirs; both the range productivity and the water quality must be preserved.

Off-road vehicles should be prohibited except on designated trails. They should be kept completely out of all of the areas of critical environmental concern.

Sincerely yours,

John B. Sutherland

John B. Sutherland

Group Response to Letters 74 through 76

The concerns in these letters have been addressed in general responses 4 and 5.

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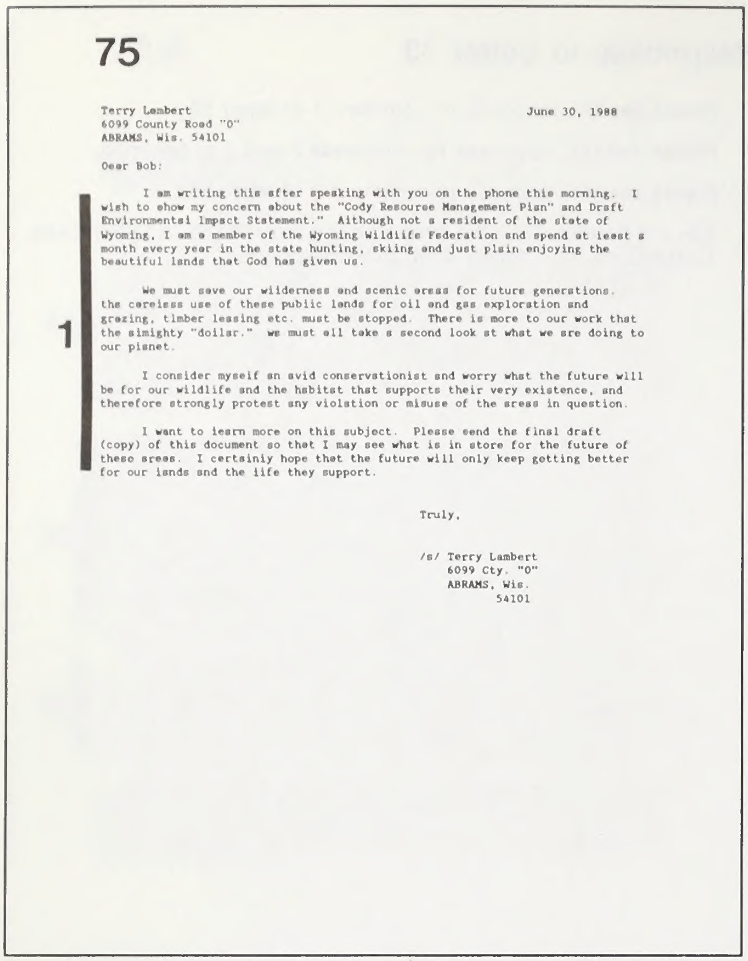


Terry Lambert
6099 County Road "O"
ABRAMS, Wis. 54101

June 30, 1988

Dear Bob:

1 I am writing this after speaking with you on the phone this morning. I wish to show my concern about the "Cody Resource Management Plan" and Draft Environmental Impact Statement." Although not a resident of the state of Wyoming, I am a member of the Wyoming Wildlife Federation and spend at least a month every year in the state hunting, skiing and just plain enjoying the beautiful lands that God has given us.

We must save our wilderness and scenic areas for future generations. the careless use of these public lands for oil and gas exploration and grazing, timber leasing etc. must be stopped. There is more to our work that the almighty "dollar." we must all take a second look at what we are doing to our planet.

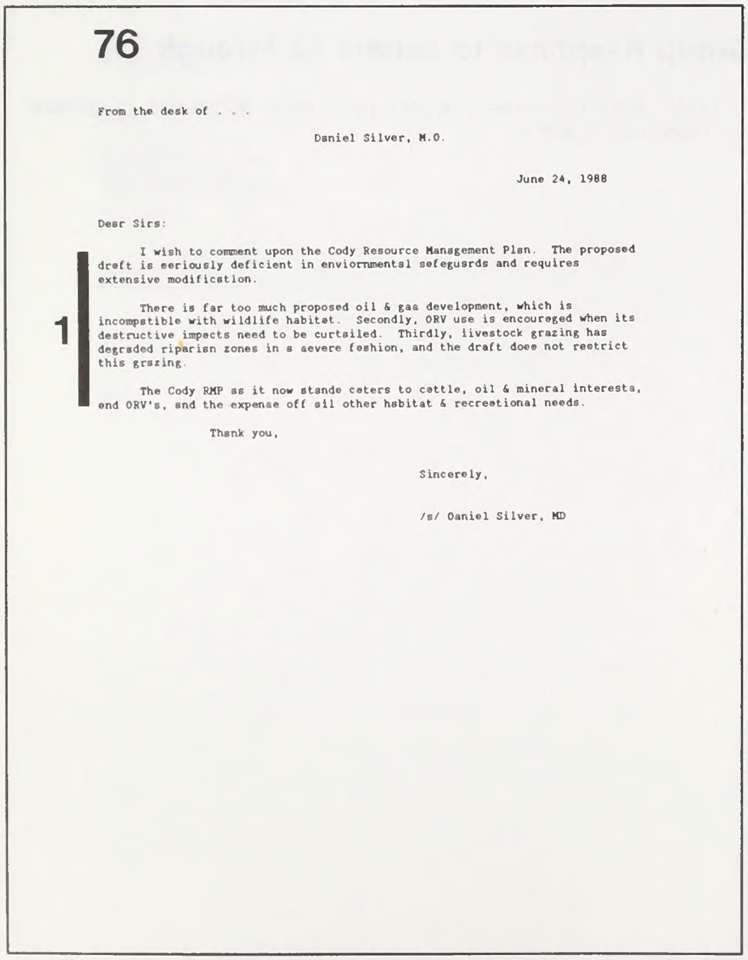
I consider myself an avid conservationist and worry what the future will be for our wildlife and the habitat that supports their very existence, and therefore strongly protest any violation or misuse of the areas in question.

I want to learn more on this subject. Please send the final draft (copy) of this document so that I may see what is in store for the future of these areas. I certainly hope that the future will only keep getting better for our lands and the life they support.

Truly,

/s/ Terry Lambert
6099 Cty. "O"
ABRAMS, Wis.
54101

76



From the desk of . . .

Daniel Silver, M.D.

June 24, 1988

Dear Sirs:

1 I wish to comment upon the Cody Resource Management Plan. The proposed draft is seriously deficient in enviornmental safeguards and requires extensive modification.

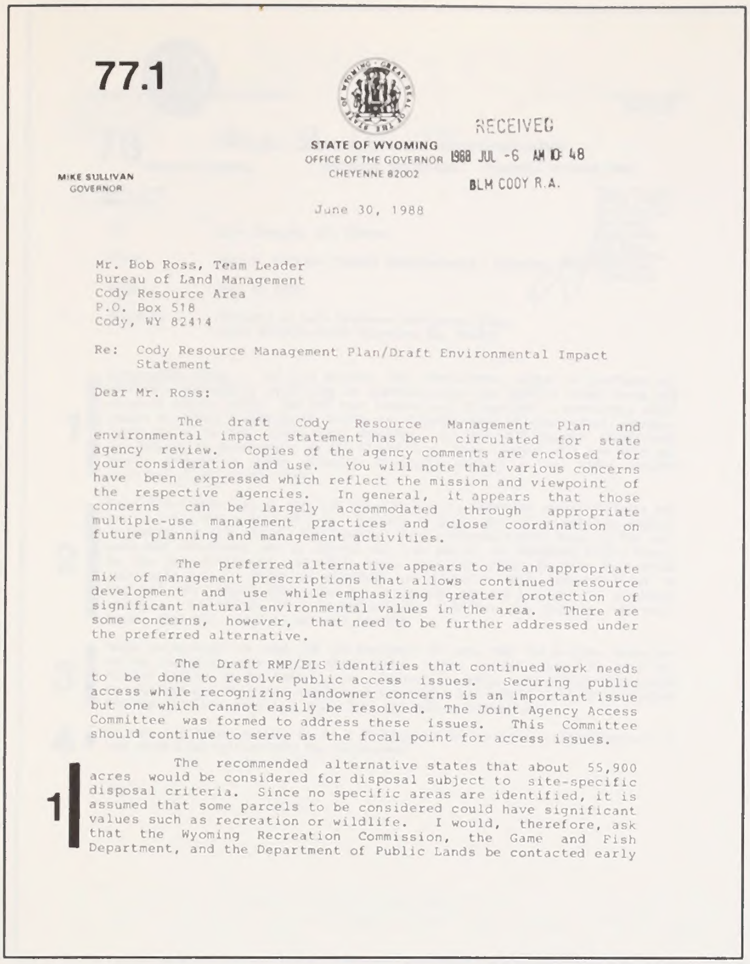
There is far too much proposed oil & gas development, which is incompatible with wildlife habitat. Secondly, ORV use is encouraged when its destructive impacts need to be curtailed. Thirdly, livestock grazing has degraded riparian zones in a severe fashion, and the draft does not restrict this grazing.

The Cody RMP as it now stands caters to cattle, oil & mineral interests, and ORV's, and the expense off all other habitat & recreational needs.

Thank you,

Sincerely,

/s/ Daniel Silver, MD



77.1

STATE OF WYOMING
OFFICE OF THE GOVERNOR
CHEYENNE 82002

MIKE SULLIVAN
GOVERNOR

RECEIVED
1988 JUL -6 AM 10 48
BLM CODY R.A.

June 30, 1988

Mr. Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

Re: Cody Resource Management Plan/Draft Environmental Impact Statement

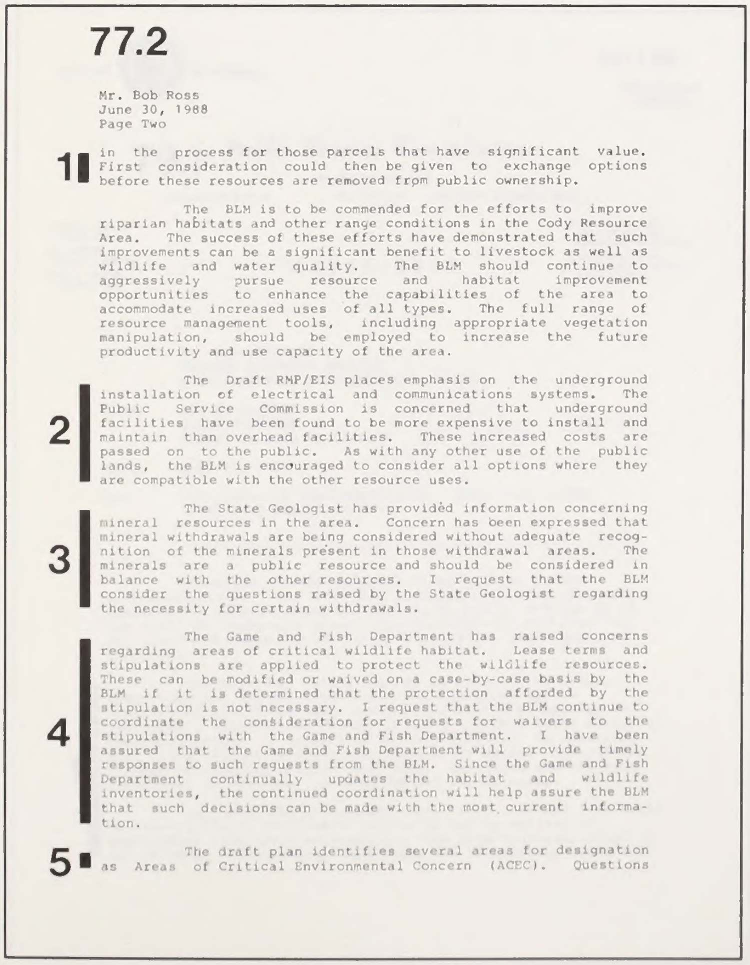
Dear Mr. Ross:

The draft Cody Resource Management Plan and environmental impact statement has been circulated for state agency review. Copies of the agency comments are enclosed for your consideration and use. You will note that various concerns have been expressed which reflect the mission and viewpoint of the respective agencies. In general, it appears that those concerns can be largely accommodated through appropriate multiple-use management practices and close coordination on future planning and management activities.

The preferred alternative appears to be an appropriate mix of management prescriptions that allows continued resource development and use while emphasizing greater protection of significant natural environmental values in the area. There are some concerns, however, that need to be further addressed under the preferred alternative.

The Draft RMP/EIS identifies that continued work needs to be done to resolve public access issues. Securing public access while recognizing landowner concerns is an important issue but one which cannot easily be resolved. The Joint Agency Access Committee was formed to address these issues. This Committee should continue to serve as the focal point for access issues.

1 The recommended alternative states that about 55,900 acres would be considered for disposal subject to site-specific disposal criteria. Since no specific areas are identified, it is assumed that some parcels to be considered could have significant values such as recreation or wildlife. I would, therefore, ask that the Wyoming Recreation Commission, the Game and Fish Department, and the Department of Public Lands be contacted early



77.2

Mr. Bob Ross
June 30, 1988
Page Two

1 in the process for those parcels that have significant value. First consideration could then be given to exchange options before these resources are removed from public ownership.

The BLM is to be commended for the efforts to improve riparian habitats and other range conditions in the Cody Resource Area. The success of these efforts have demonstrated that such improvements can be a significant benefit to livestock as well as wildlife and water quality. The BLM should continue to aggressively pursue resource and habitat improvement opportunities to enhance the capabilities of the area to accommodate increased uses of all types. The full range of resource management tools, including appropriate vegetation manipulation, should be employed to increase the future productivity and use capacity of the area.

2 The Draft RMP/EIS places emphasis on the underground installation of electrical and communications systems. The Public Service Commission is concerned that underground facilities have been found to be more expensive to install and maintain than overhead facilities. These increased costs are passed on to the public. As with any other use of the public lands, the BLM is encouraged to consider all options where they are compatible with the other resource uses.

3 The State Geologist has provided information concerning mineral resources in the area. Concern has been expressed that mineral withdrawals are being considered without adequate recognition of the minerals present in those withdrawal areas. The minerals are a public resource and should be considered in balance with the other resources. I request that the BLM consider the questions raised by the State Geologist regarding the necessity for certain withdrawals.

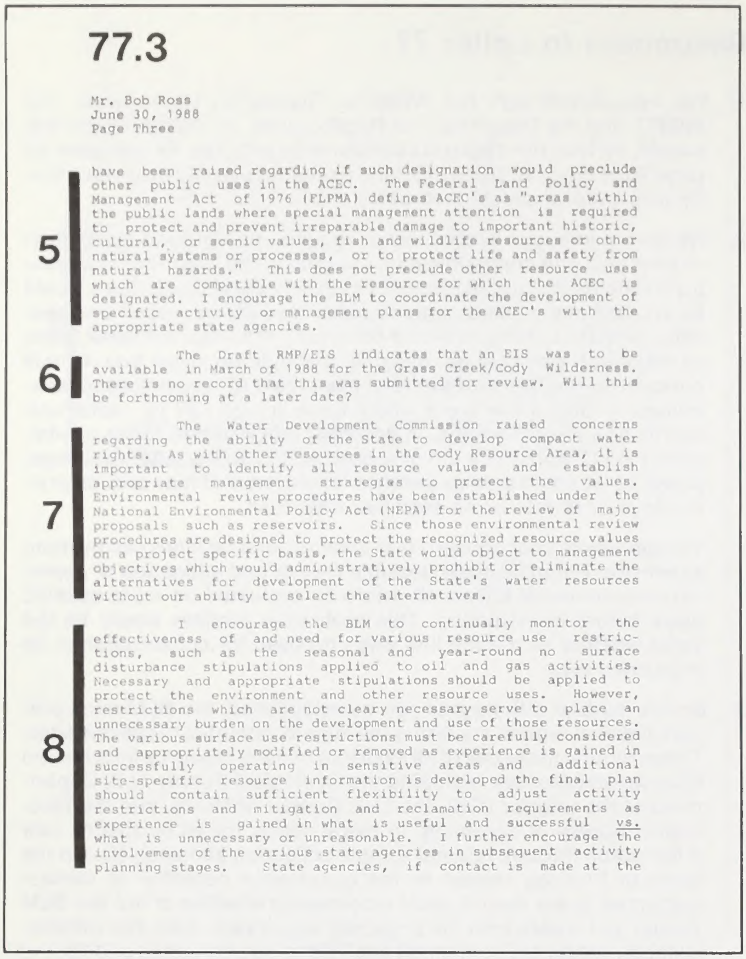
4 The Game and Fish Department has raised concerns regarding areas of critical wildlife habitat. Lease terms and stipulations are applied to protect the wildlife resources. These can be modified or waived on a case-by-case basis by the BLM if it is determined that the protection afforded by the stipulation is not necessary. I request that the BLM continue to coordinate the consideration for requests for waivers to the stipulations with the Game and Fish Department. I have been assured that the Game and Fish Department will provide timely responses to such requests from the BLM. Since the Game and Fish Department continually updates the habitat and wildlife inventories, the continued coordination will help assure the BLM that such decisions can be made with the most current information.

5 The draft plan identifies several areas for designation as Areas of Critical Environmental Concern (ACEC). Questions

Responses to Letter 77

1. We will consult with the Wyoming Recreation Commission, the WGFD, and the Department of Public Lands, on possible land disposals, early in the disposal consideration process. As indicated on page 26 of the draft RMP/EIS, land exchanges would be given priority over other disposal methods.
2. We do not intend to emphasize or require underground installation of electrical and communications systems. The draft RMP/EIS simply indicates that the placement of aboveground power lines would be avoided in the same areas. In these "avoidance areas," one possible mitigative measure would be to bury the lines, but other types of mitigation also may be available. It should be noted that there is concern or emphasis for avoiding placement of "aboveground powerlines" in only a few areas where there is high risk for raptor collisions and electrocutions, in essential black-footed ferret habitat, and in the Chapman Bench proposed ACEC. In the latter two areas, power poles could provide perches for raptors that may prey on prairie dogs or ferrets or on sensitive waterfowl.

   We appreciate your concern that underground facilities can be more expensive. Potential costs, feasible routes, and mitigation of potential environmental effects all would be evaluated on a site-specific basis before construction. This evaluation process would be the same whether or not the line was proposed for construction in an avoidance area.
3. Before mineral withdrawals can be established, the BLM must prepare detailed reports assessing the mineral potential of specific sites. These reports make use of all available mineral resource information from several sources, including the Geological Survey, U.S. Department of the Interior (GS), the U.S. Bureau of Mines, and the Geological Survey of Wyoming. In many cases, the BLM obtains new information through mineral sample collection and analysis. On the basis of findings related to the occurrence potential of mineral resources, these reports must recommend whether or not the BLM should go forward with the proposed withdrawal. Also, the withdrawal requires an environmental analysis to be conducted addressing the impacts that would occur if the lands were withdrawn.
4. The Cody Resource Area will continue to consult with the WGFD on matters relating to the management of wildlife habitat. We will consult with the WGFD in all situations that could involve exceptions to BLM standard mitigation guidelines, particularly in areas of overlapping crucial habitat.
5. Please see to general response 4.
6. The final Grass Creek/Cody wilderness EIS should be available by April or May 1989.
7. It is not our intention that the proposed plan contain management objectives that would administratively prohibit opportunities for development of the state's water resources. Should such circumstances arise through oversight or insufficient foresight, corrective measures can be taken, including amendment of the RMP, if necessary.
8. As new resource information becomes available, we will continue to evaluate the need for protective restrictions in the Cody Resource Area to determine whether greater or lesser levels of restriction are required for specific circumstances. On the basis of these evaluations, the plan will be modified, refined, and amended as appropriate. We will continue contacts and coordination with the state agencies in updating and maintaining the approved RMP, and we also will contact them for assistance with detailed activity plans.



77.3

Mr. Bob Ross
June 30, 1988
Page Three

5 have been raised regarding if such designation would preclude other public uses in the ACEC. The Federal Land Policy and Management Act of 1976 (FLPMA) defines ACEC's as "areas within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards." This does not preclude other resource uses which are compatible with the resource for which the ACEC is designated. I encourage the BLM to coordinate the development of specific activity or management plans for the ACEC's with the appropriate state agencies.

6 The Draft RMP/EIS indicates that an EIS was to be available in March of 1988 for the Grass Creek/Cody Wilderness. There is no record that this was submitted for review. Will this be forthcoming at a later date?

7 The Water Development Commission raised concerns regarding the ability of the State to develop compact water rights. As with other resources in the Cody Resource Area, it is important to identify all resource values and establish appropriate management strategies to protect the values. Environmental review procedures have been established under the National Environmental Policy Act (NEPA) for the review of major proposals such as reservoirs. Since those environmental review procedures are designed to protect the recognized resource values on a project specific basis, the State would object to management objectives which would administratively prohibit or eliminate the alternatives for development of the State's water resources without our ability to select the alternatives.

8 I encourage the BLM to continually monitor the effectiveness of and need for various resource use restrictions, such as the seasonal and year-round no surface disturbance stipulations applied to oil and gas activities. Necessary and appropriate stipulations should be applied to protect the environment and other resource uses. However, restrictions which are not cleary necessary serve to place an unnecessary burden on the development and use of those resources. The various surface use restrictions must be carefully considered and appropriately modified or removed as experience is gained in successfully operating in sensitive areas and additional site-specific resource information is developed the final plan should contain sufficient flexibility to adjust activity restrictions and mitigation and reclamation requirements as experience is gained in what is useful and successful vs. what is unnecessary or unreasonable. I further encourage the involvement of the various state agencies in subsequent activity planning stages. State agencies, if contact is made at the

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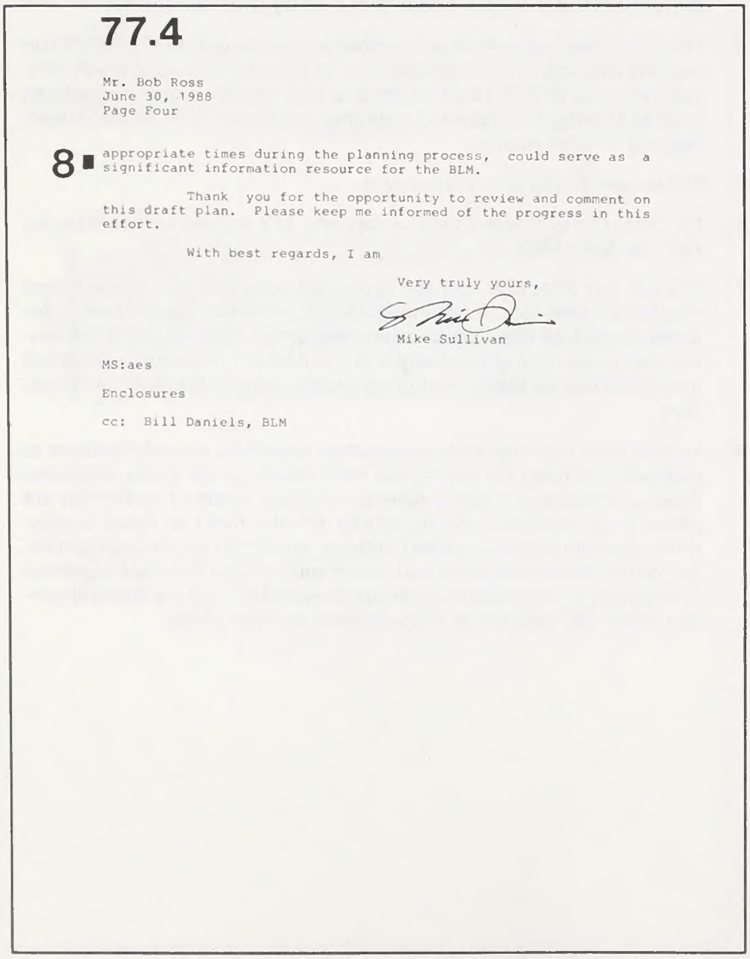


77.4

Mr. Bob Ross
June 30, 1988
Page Four

8 appropriate times during the planning process, could serve as a significant information resource for the BLM.

Thank you for the opportunity to review and comment on this draft plan. Please keep me informed of the progress in this effort.

With best regards, I am

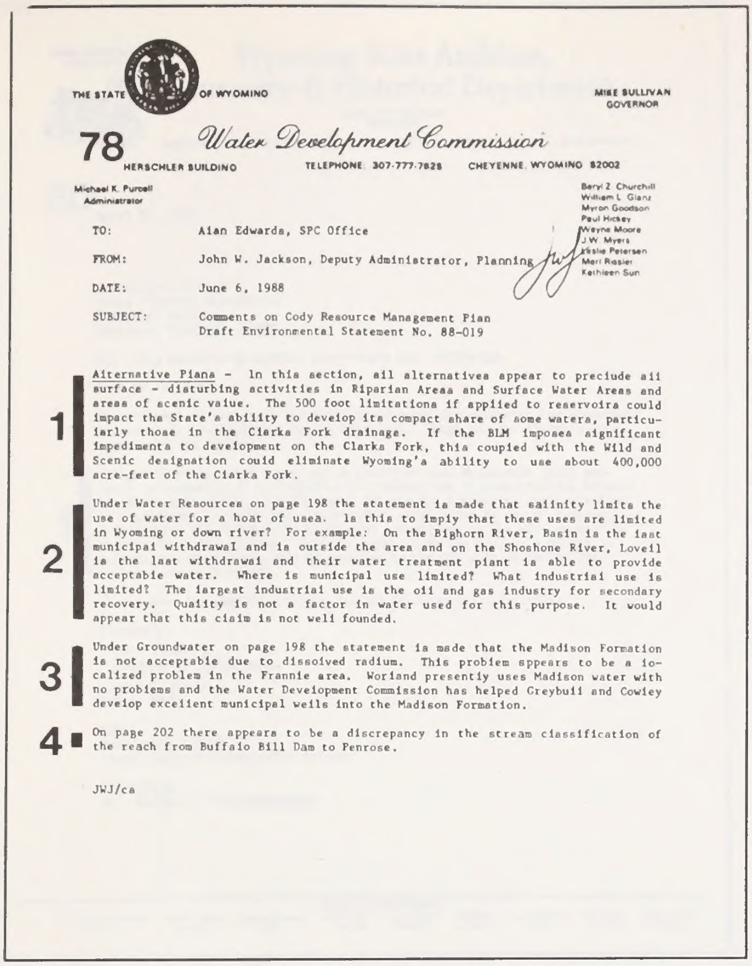
Very truly yours,

Mike Sullivan

MS:aes

Enclosures

cc: Bill Daniels, BLM



THE STATE OF WYOMING
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78

Water Development Commission
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TO: Alan Edwards, SPC Office

FROM: John W. Jackson, Deputy Administrator, Planning JWJ

DATE: June 6, 1988

SUBJECT: Comments on Cody Resource Management Plan
Draft Environmental Statement No. 88-019

1 Alternative Plans - In this section, all alternatives appear to preclude all surface - disturbing activities in Riparian Areas and Surface Water Areas and areas of scenic value. The 500 foot limitations if applied to reservoirs could impact the State's ability to develop its compact share of some waters, particularly those in the Clarks Fork drainage. If the BLM imposes significant impediments to development on the Clarks Fork, this coupled with the Wild and Scenic designation could eliminate Wyoming's ability to use about 400,000 acre-feet of the Clarks Fork.

2 Under Water Resources on page 198 the statement is made that salinity limits the use of water for a host of uses. Is this to imply that these uses are limited in Wyoming or down river? For example: On the Bighorn River, Basin is the last municipal withdrawal and is outside the area and on the Shoshone River, Lovell is the last withdrawal and their water treatment plant is able to provide acceptable water. Where is municipal use limited? What industrial use is limited? The largest industrial use is the oil and gas industry for secondary recovery. Quality is not a factor in water used for this purpose. It would appear that this claim is not well founded.

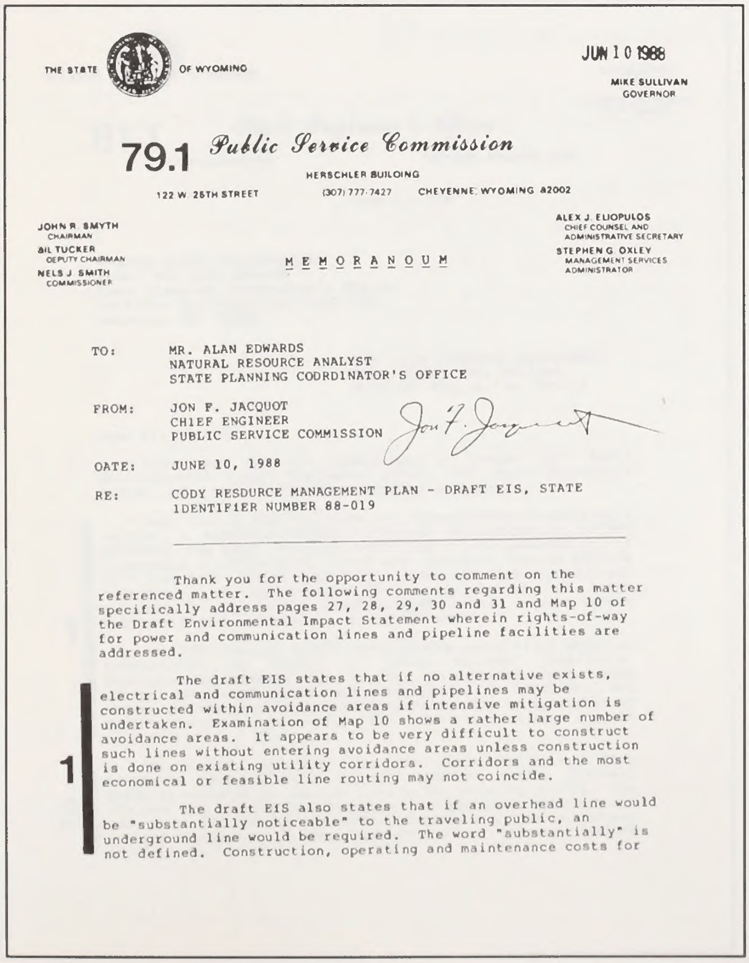
3 Under Groundwater on page 198 the statement is made that the Madison Formation is not acceptable due to dissolved radium. This problem appears to be a localized problem in the Frannie area. Worland presently uses Madison water with no problems and the Water Development Commission has helped Greybull and Cowley develop excellent municipal wells into the Madison Formation.

4 On page 202 there appears to be a discrepancy in the stream classification of the reach from Buffalo Bill Dam to Penrose.

JWJ/ca

Responses to Letter 78

1. Please see the response to comment 7 of letter 77.
2. In the section on "Additions and Corrections for Chapter 3," we have added language to indicate that salinity *may impair* water for certain uses. The statement that salinity limits the use of water was meant to imply that salinity is a water quality parameter that needs consideration when water is developed for a particular use. All the sectors that utilize water were listed on page 198 to emphasize the importance of water quality.
3. We agree that our statement was misleading. Accordingly, we have placed new wording in the "Additions and Corrections for Chapter 3."
4. Thank you for the information. Please see the revised table 16 in this document.



THE STATE OF WYOMING
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79.1

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JUN 10 1988

MEMORANDUM

TO: MR. ALAN EDWARDS
NATURAL RESOURCE ANALYST
STATE PLANNING COORDINATOR'S OFFICE

FROM: JON F. JACQUOT
CHIEF ENGINEER
PUBLIC SERVICE COMMISSION Jon F. Jacquot

DATE: JUNE 10, 1988

RE: CODY RESOURCE MANAGEMENT PLAN - DRAFT EIS, STATE IDENTIFIER NUMBER 88-019

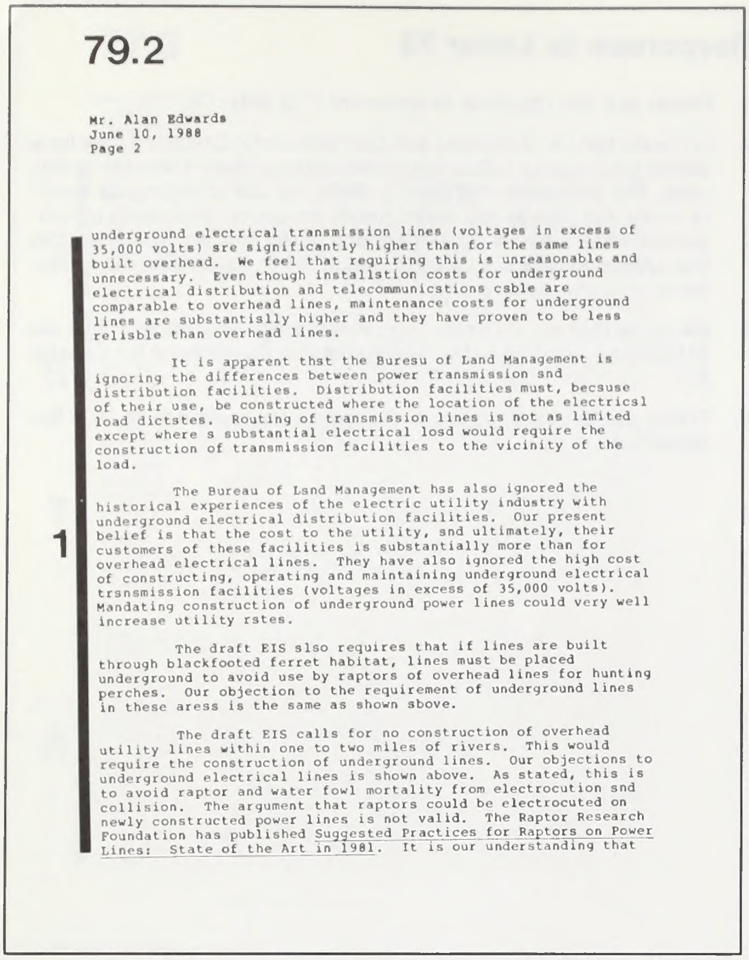
Thank you for the opportunity to comment on the referenced matter. The following comments regarding this matter specifically address pages 27, 28, 29, 30 and 31 and Map 10 of the Draft Environmental Impact Statement wherein rights-of-way for power and communication lines and pipeline facilities are addressed.

1 The draft EIS states that if no alternative exists, electrical and communication lines and pipelines may be constructed within avoidance areas if intensive mitigation is undertaken. Examination of Map 10 shows a rather large number of avoidance areas. It appears to be very difficult to construct such lines without entering avoidance areas unless construction is done on existing utility corridors. Corridors and the most economical or feasible line routing may not coincide.

The draft EIS also states that if an overhead line would be "substantially noticeable" to the traveling public, an underground line would be required. The word "substantially" is not defined. Construction, operating and maintenance costs for

Response to Letter 79

1. Please see the response to comment 2 of letter 77.



79.2

Mr. Alan Edwards
June 10, 1988
Page 2

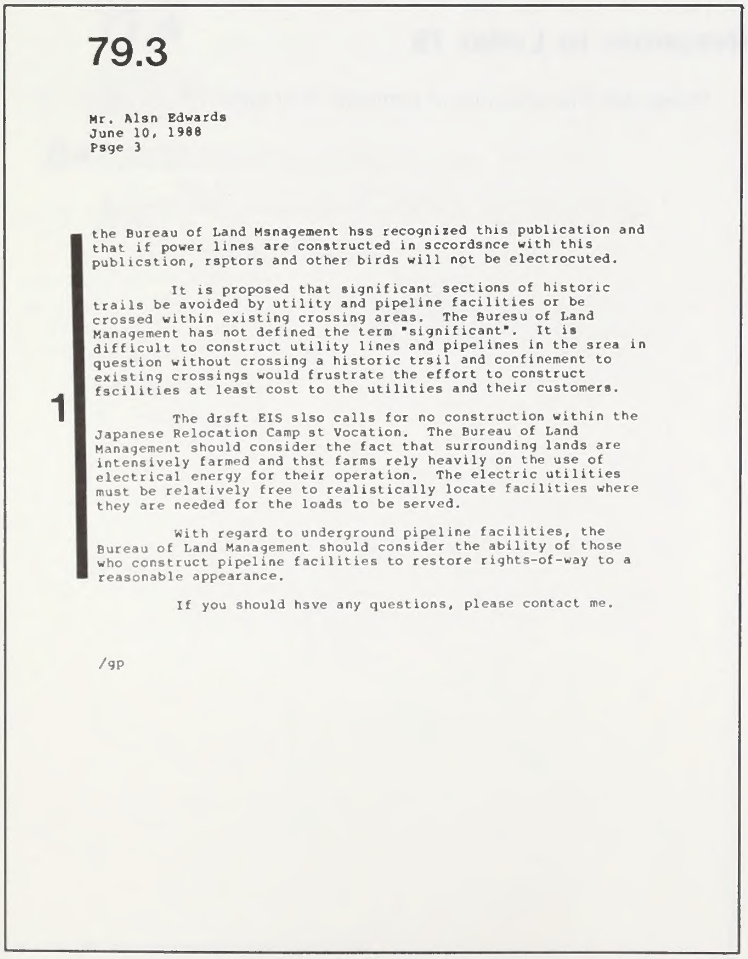
underground electrical transmission lines (voltages in excess of 35,000 volts) sre significantly higher than for the same lines built overhead. We feel that requiring this is unreasonable and unnecessary. Even though installstion costs for underground electrical distribution and telecommunicstions csble are comparable to overhead lines, maintenance costs for underground lines are substantislly higher and they have proven to be less relisble than overhead lines.

It is apparent thst the Buresu of Land Management is ignoring the differences between power transmission snd distribution facilities. Distribution facilities must, becsuse of their use, be constructed where the location of the electricsl load dictstes. Routing of transmission lines is not as limited except where s substantial electrical losd would require the construction of transmission facilities to the vicinity of the load.

1 The Bureau of Lsnd Management hss also ignored the historical experiences of the electric utility industry with underground electrical distribution facilities. Our present belief is that the cost to the utility, snd ultimately, their customers of these facilities is substantially more than for overhead electrical lines. They have also ignored the high cost of constructing, operating and maintaining underground electrical trsnsmission facilities (voltages in excess of 35,000 volts). Mandating construction of underground power lines could very well increase utility rstes.

The draft EIS slso requires that if lines are built through blackfooted ferret habitat, lines must be placed underground to avoid use by raptors of overhead lines for hunting perches. Our objection to the requirement of underground lines in these aress is the same as shown sbove.

The draft EIS calls for no construction of overhead utility lines within one to two miles of rivers. This would require the construction of underground lines. Our objections to underground electrical lines is shown above. As stated, this is to avoid raptor and water fowl mortality from electrocution snd collision. The argument that raptors could be electrocuted on newly constructed power lines is not valid. The Raptor Research Foundation has published Suggested Practices for Raptors on Power Lines: State of the Art in 1981. It is our understanding that



79.3

Mr. Alsn Edwards
June 10, 1988
Psge 3

the Bureau of Land Msnagement hss recognized this publication and that if power lines are constructed in sccordsnce with this publicstion, rsptors and other birds will not be electrocuted.

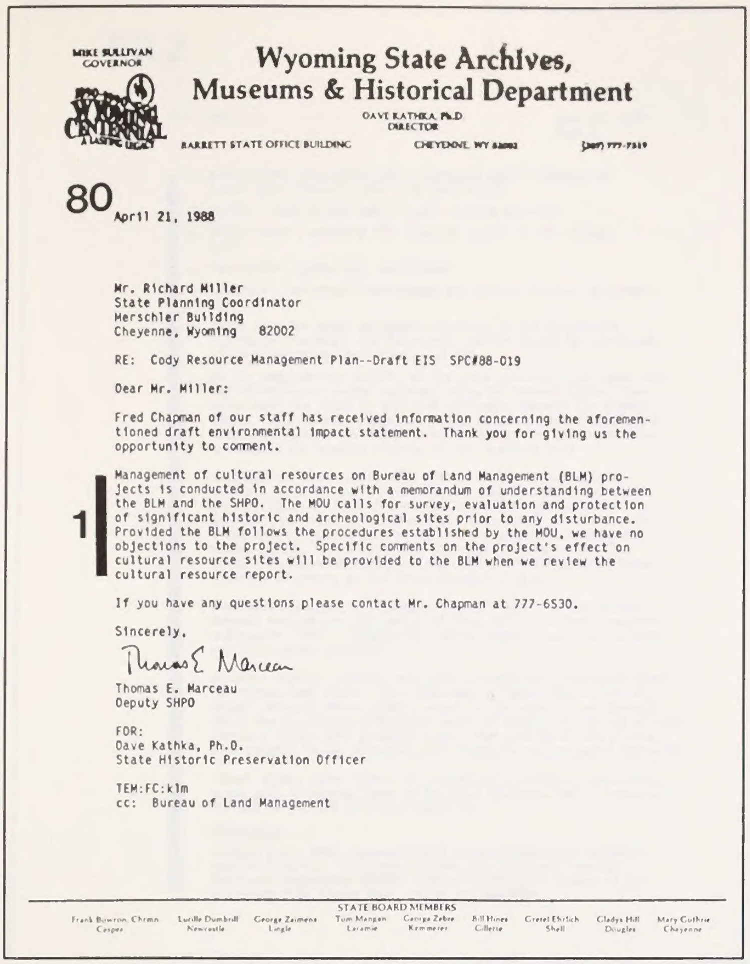
It is proposed that significant sections of historic trails be avoided by utility and pipeline facilities or be crossed within existing crossing areas. The Buresu of Land Management has not defined the term "significant". It is difficult to construct utility lines and pipelines in the srea in question without crossing a historic trsil and confinement to existing crossings would frustrate the effort to construct fscilities at least cost to the utilities and their customers.

1 The drsft EIS slso calls for no construction within the Japanese Relocation Camp st Vocation. The Bureau of Land Management should consider the fact that surrounding lands are intensively farmed and thst farms rely heavily on the use of electrical energy for their operation. The electric utilities must be relatively free to realistically locate facilities where they are needed for the loads to be served.

With regard to underground pipeline facilities, the Bureau of Land Management should consider the ability of those who construct pipeline facilities to restore rights-of-way to a reasonable appearance.

If you should hsve any questions, please contact me.

/gp



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Wyoming State Archives, Museums & Historical Department

DAVE KATHKA, Ph.D
DIRECTOR

BARRETT STATE OFFICE BUILDING CHEYENNE, WY 82002 (307) 777-7519

80

April 21, 1988

Mr. Richard Miller
State Planning Coordinator
Herschler Building
Cheyenne, Wyoming 82002

RE: Cody Resource Management Plan--Draft EIS SPC#88-019

Dear Mr. Miller:

Fred Chapman of our staff has received information concerning the aforementioned draft environmental impact statement. Thank you for giving us the opportunity to comment.

1 Management of cultural resources on Bureau of Land Management (BLM) projects is conducted in accordance with a memorandum of understanding between the BLM and the SHPO. The MOU calls for survey, evaluation and protection of significant historic and archeological sites prior to any disturbance. Provided the BLM follows the procedures established by the MOU, we have no objections to the project. Specific comments on the project's effect on cultural resource sites will be provided to the BLM when we review the cultural resource report.

If you have any questions please contact Mr. Chapman at 777-6530.

Sincerely,

Thomas E. Marceau

Thomas E. Marceau
Deputy SHPO

FOR:
Dave Kathka, Ph.D.
State Historic Preservation Officer

TEM:FC:klm
cc: Bureau of Land Management

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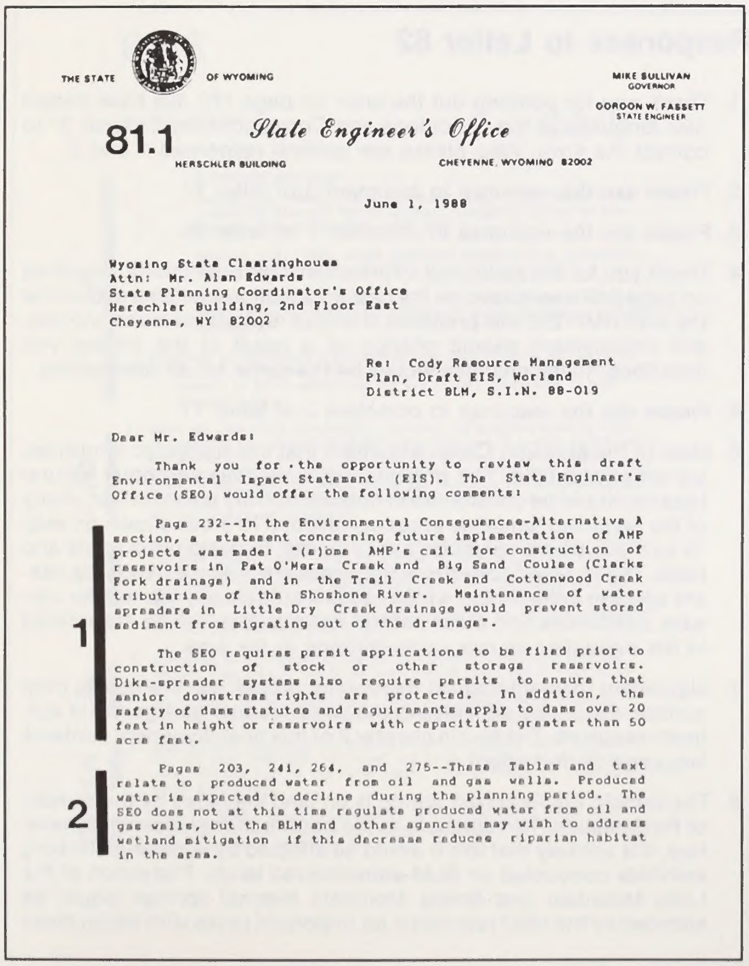
Response to Letter 80

1. Thank you for commenting. The BLM will continue to follow the procedures of the memorandum of understanding.



THE STATE OF WYOMING

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GORDON W. FASSETT
STATE ENGINEER

81.1

State Engineer's Office

HERSCHLER BUILDING CHEYENNE, WYOMING 82002

June 1, 1988

Wyoming State Clearinghouse
Attn: Mr. Alan Edwards
State Planning Coordinator's Office
Herschler Building, 2nd Floor East
Cheyenne, WY 82002

Re: Cody Resource Management
Plan, Draft EIS, Worland
District BLM, S.I.N. 88-019

Dear Mr. Edwards:

Thank you for the opportunity to review this draft Environmental Impact Statement (EIS). The State Engineer's Office (SEO) would offer the following comments:

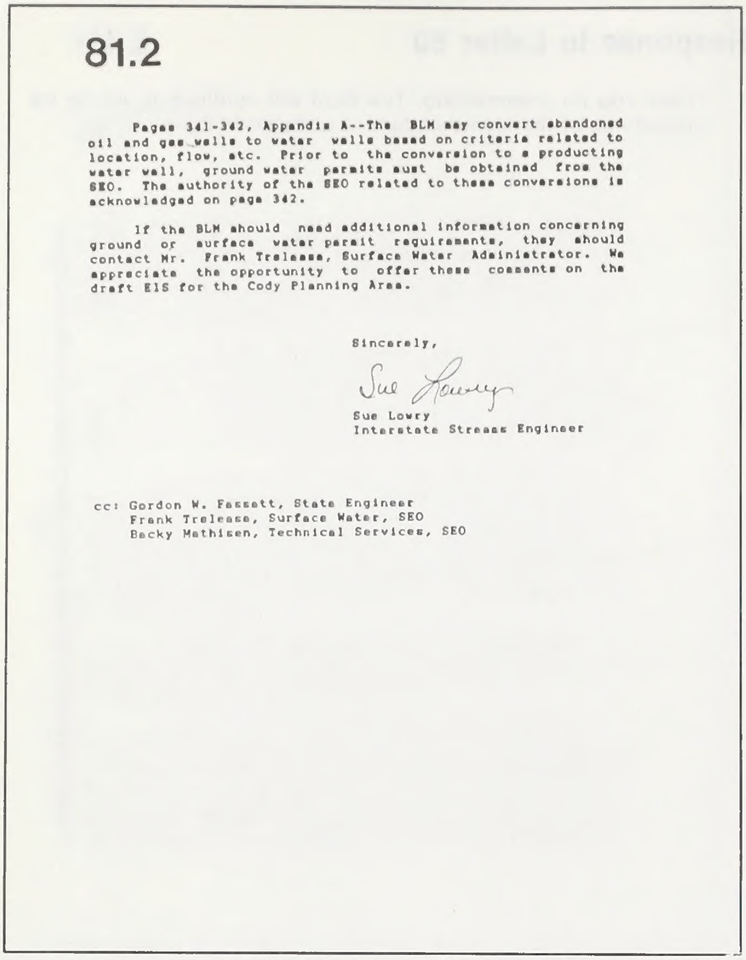
1 Page 232--In the Environmental Consequences-Alternative A section, a statement concerning future implementation of AMP projects was made: "(s)ome AMP's call for construction of reservoirs in Pat O'Hara Creek and Big Sand Coulee (Clarks Fork drainage) and in the Trail Creek and Cottonwood Creek tributaries of the Shoshone River. Maintenance of water spreaders in Little Dry Creek drainage would prevent stored sediment from migrating out of the drainage".

The SEO requires permit applications to be filed prior to construction of stock or other storage reservoirs. Dike-spreader systems also require permits to ensure that senior downstream rights are protected. In addition, the safety of dams statutes and requirements apply to dams over 20 feet in height or reservoirs with capacitites greater than 50 acre feet.

2 Pages 203, 241, 264, and 275--These Tables and text relate to produced water from oil and gas wells. Produced water is expected to decline during the planning period. The SEO does not at this time regulate produced water from oil and gas wells, but the BLM and other agencies may wish to address wetland mitigation if this decrease reduces riparian habitat in the area.

Responses to Letter 81

1. We are aware of state filing requirements for the permit applications you mentioned. The BLM will comply with state regulations.
2. The BLM has no control over the quantity of produced water that the oil industry generates; however, it does have some control over disposal methods. If an oil company chooses to dispose of its produced water other than by discharging to a surface drainage, the loss of wetland habitat could result. In such a case, there might be some opportunity to negotiate for surface discharges. Specific opportunities would be addressed in the Cody wetlands HMP or when proposed actions were authorized. If produced water ceased altogether, then the loss of riparian habitat would be inevitable. We cannot require mitigation to offset this loss.



81.2

Pages 341-342, Appendix A--The BLM may convert abandoned oil and gas wells to water wells based on criteria related to location, flow, etc. Prior to the conversion to a producting water well, ground water permits must be obtained from the SEO. The authority of the SEO related to these conversions is acknowledged on page 342.

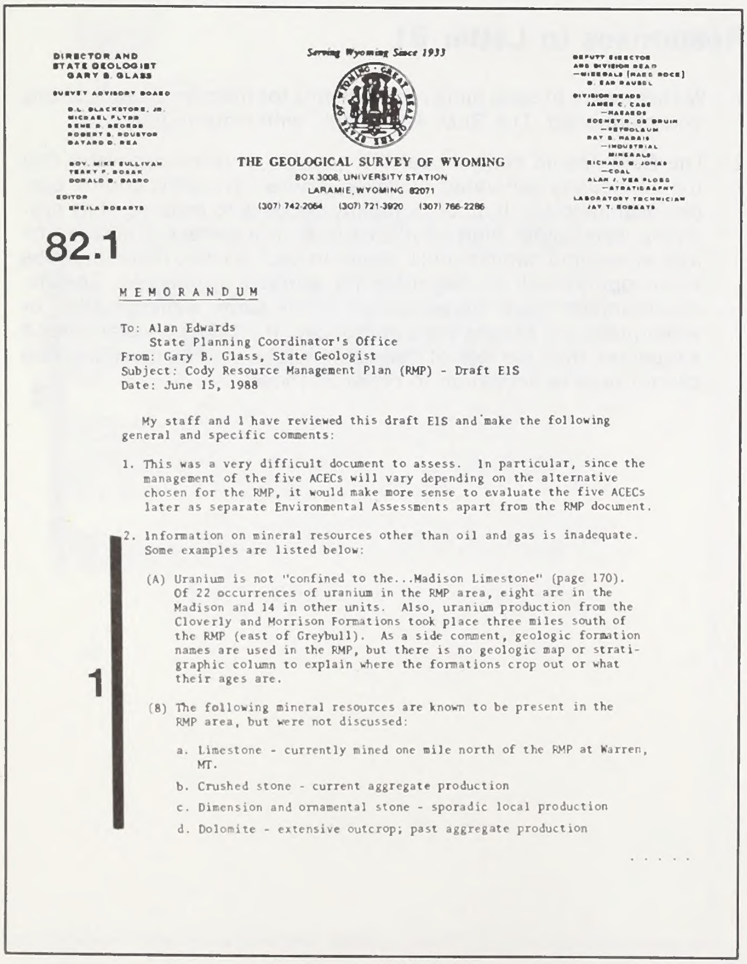
If the BLM should need additional information concerning ground or surface water permit requirements, they should contact Mr. Frank Trelease, Surface Water Administrator. We appreciate the opportunity to offer these comments on the draft EIS for the Cody Planning Area.

Sincerely,

Sue Lowry

Sue Lowry
Interstate Streams Engineer

cc: Gordon W. Fassett, State Engineer
Frank Trelease, Surface Water, SEO
Becky Mathisen, Technical Services, SEO



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82.1

MEMORANDUM

To: Alan Edwards
State Planning Coordinator's Office
From: Gary B. Glass, State Geologist
Subject: Cody Resource Management Plan (RMP) - Draft EIS
Date: June 15, 1988

My staff and I have reviewed this draft EIS and make the following general and specific comments:

1. This was a very difficult document to assess. In particular, since the management of the five ACECs will vary depending on the alternative chosen for the RMP, it would make more sense to evaluate the five ACECs later as separate Environmental Assessments apart from the RMP document.

1 2. Information on mineral resources other than oil and gas is inadequate. Some examples are listed below:

(A) Uranium is not "confined to the...Madison Limestone" (page 170). Of 22 occurrences of uranium in the RMP area, eight are in the Madison and 14 in other units. Also, uranium production from the Cloverly and Morrison Formations took place three miles south of the RMP (east of Greybull). As a side comment, geologic formation names are used in the RMP, but there is no geologic map or stratigraphic column to explain where the formations crop out or what their ages are.

(8) The following mineral resources are known to be present in the RMP area, but were not discussed:

a. Limestone - currently mined one mile north of the RMP at Warren, MT.

b. Crushed stone - current aggregate production

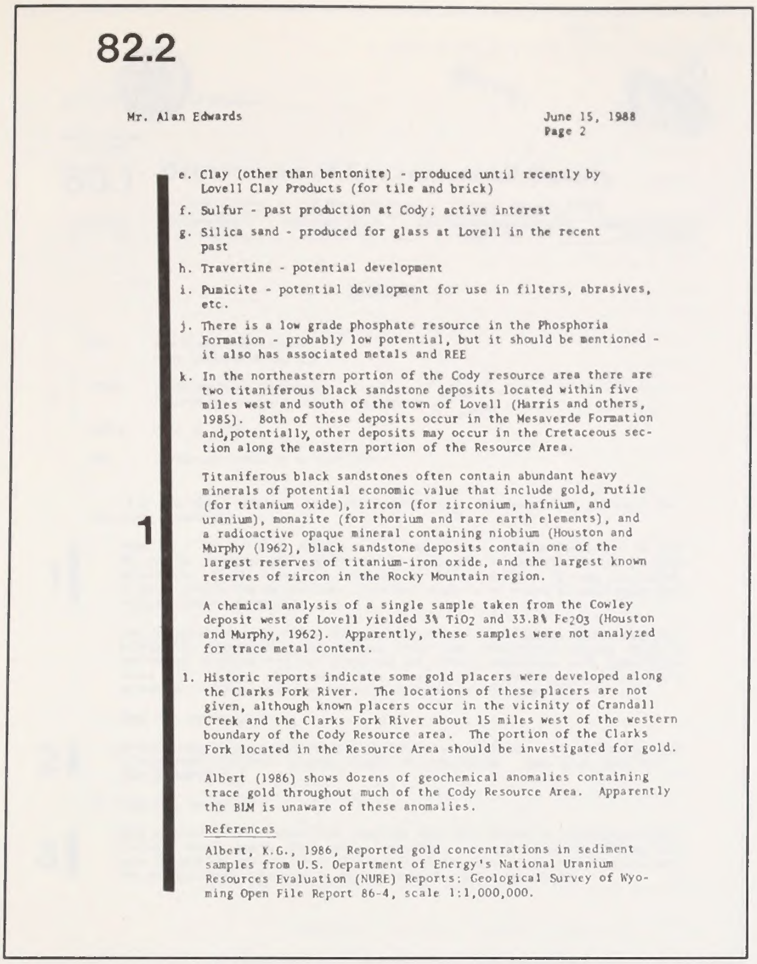
c. Dimension and ornamental stone - sporadic local production

d. Dolomite - extensive outcrop; past aggregate production

. . . . .

Responses to Letter 82

1. Thank you for pointing out the error on page 170. We have placed new language in the "Additions and Corrections for Chapter 3" to correct the error. Also please see general responses 1 and 2.
2. Please see the response to comment 3 of letter 77.
3. Please see the response to comment 7 of letter 56.
4. Thank you for the additional information. Our projections described on page 240 were based on the best information available at the time the draft RMP/EIS was prepared. If output revenue, personal income, and employment should change as a result of the project you described, these changes would be the same for all alternatives.
5. Please see the response to comment 2 of letter 11.
6. Most of the areas on Carter Mountain that are subject to landslides are on private land. The potential for landslides and other natural hazards would be considered in detailed activity plans. In fact, many of the identified landslide areas correspond to areas shown on map 13 as areas where vehicular use is limited to designated roads and trails. The BLM will consider which areas are potential landslide hazard areas in determining which roads would be appropriate for closure. Landslides and other natural hazards also will be considered in the evaluation of use authorizations in the area.
7. Significant paleontological resources would be protected from surface-disturbing activities in the same manner as significant cultural resources. The text in chapter 2 of this final document contains language to that effect.
8. The Buffalo Bill Reservoir spring is on land managed by the Bureau of Reclamation. The spring is at the bottom of that reservoir; therefore, it is unlikely that this it would be affected by surface-disturbing activities conducted on BLM-administered lands. Protection of the Little Mountain and Sheep Mountain thermal springs would be afforded by the NSO restriction for important caves with which these



82.2

Mr. Alan Edwards

June 15, 1988
Page 2

e. Clay (other than bentonite) - produced until recently by Lovell Clay Products (for tile and brick)

f. Sulfur - past production at Cody; active interest

g. Silica sand - produced for glass at Lovell in the recent past

h. Travertine - potential development

i. Pumicite - potential development for use in filters, abrasives, etc.

j. There is a low grade phosphate resource in the Phosphoria Formation - probably low potential, but it should be mentioned - it also has associated metals and REE

k. In the northeastern portion of the Cody resource area there are two titaniferous black sandstone deposits located within five miles west and south of the town of Lovell (Harris and others, 1985). Both of these deposits occur in the Mesaverde Formation and, potentially, other deposits may occur in the Cretaceous section along the eastern portion of the Resource Area.

1 Titaniferous black sandstones often contain abundant heavy minerals of potential economic value that include gold, rutile (for titanium oxide), zircon (for zirconium, hafnium, and uranium), monazite (for thorium and rare earth elements), and a radioactive opaque mineral containing niobium (Houston and Murphy (1962), black sandstone deposits contain one of the largest reserves of titanium-iron oxide, and the largest known reserves of zircon in the Rocky Mountain region.

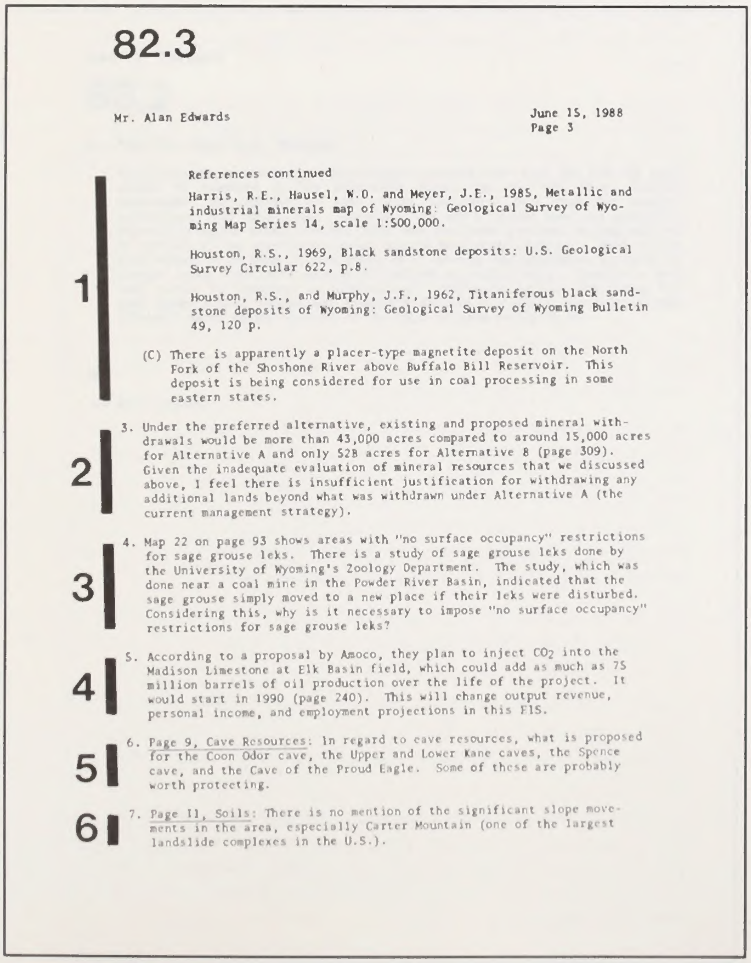
A chemical analysis of a single sample taken from the Cowley deposit west of Lovell yielded 3% TiO_2 and 33.8% Fe_2O_3 (Houston and Murphy, 1962). Apparently, these samples were not analyzed for trace metal content.

l. Historic reports indicate some gold placers were developed along the Clarks Fork River. The locations of these placers are not given, although known placers occur in the vicinity of Crandall Creek and the Clarks Fork River about 15 miles west of the western boundary of the Cody Resource area. The portion of the Clarks Fork located in the Resource Area should be investigated for gold.

Albert (1986) shows dozens of geochemical anomalies containing trace gold throughout much of the Cody Resource Area. Apparently the BLM is unaware of these anomalies.

References

Albert, K.G., 1986, Reported gold concentrations in sediment samples from U.S. Department of Energy's National Uranium Resources Evaluation (NURE) Reports: Geological Survey of Wyoming Open File Report 86-4, scale 1:1,000,000.



82.3

Mr. Alan Edwards

June 15, 1988
Page 3

References continued

Harris, R.E., Hausel, W.D. and Meyer, J.E., 1985, Metallic and industrial minerals map of Wyoming: Geological Survey of Wyoming Map Series 14, scale 1:500,000.

1 Houston, R.S., 1969, Black sandstone deposits: U.S. Geological Survey Circular 622, p.8.

Houston, R.S., and Murphy, J.F., 1962, Titaniferous black sandstone deposits of Wyoming: Geological Survey of Wyoming Bulletin 49, 120 p.

(C) There is apparently a placer-type magnetite deposit on the North Fork of the Shoshone River above Buffalo Bill Reservoir. This deposit is being considered for use in coal processing in some eastern states.

2 3. Under the preferred alternative, existing and proposed mineral withdrawals would be more than 43,000 acres compared to around 15,000 acres for Alternative A and only 528 acres for Alternative B (page 309). Given the inadequate evaluation of mineral resources that we discussed above, I feel there is insufficient justification for withdrawing any additional lands beyond what was withdrawn under Alternative A (the current management strategy).

3 4. Map 22 on page 93 shows areas with "no surface occupancy" restrictions for sage grouse leks. There is a study of sage grouse leks done by the University of Wyoming's Zoology Department. The study, which was done near a coal mine in the Powder River Basin, indicated that the sage grouse simply moved to a new place if their leks were disturbed. Considering this, why is it necessary to impose "no surface occupancy" restrictions for sage grouse leks?

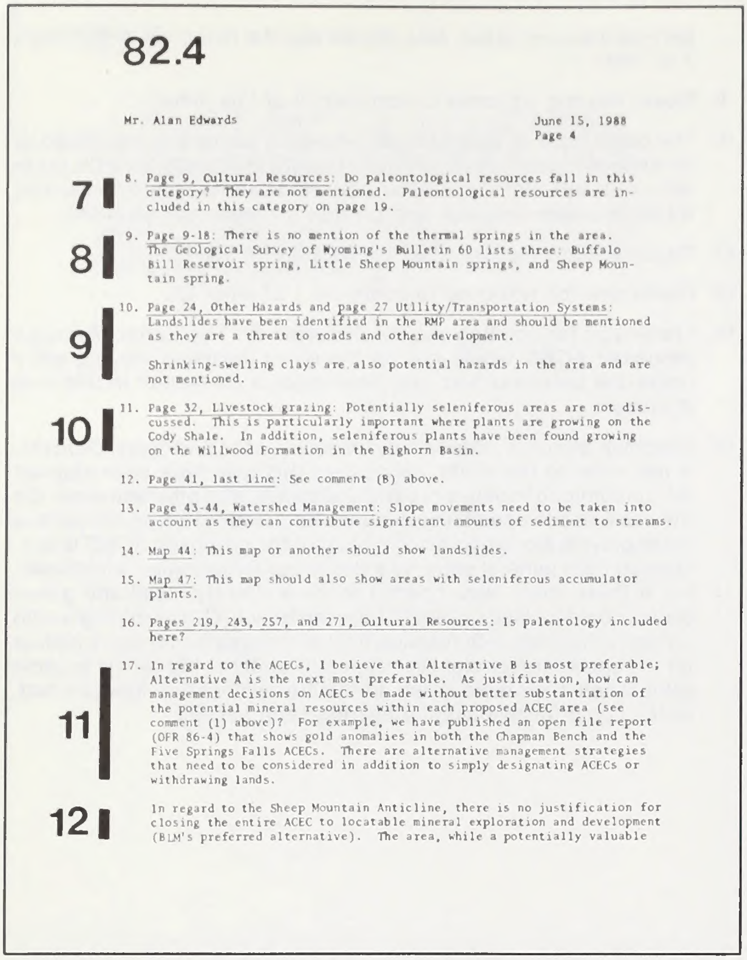
4 5. According to a proposal by Amoco, they plan to inject CO_2 into the Madison Limestone at Elk Basin field, which could add as much as 75 million barrels of oil production over the life of the project. It would start in 1990 (page 240). This will change output revenue, personal income, and employment projections in this EIS.

5 6. Page 9, Cave Resources: In regard to cave resources, what is proposed for the Coon Odor cave, the Upper and Lower Kane caves, the Spence cave, and the Cave of the Proud Eagle. Some of these are probably worth protecting.

6 7. Page 11, Soils: There is no mention of the significant slope movements in the area, especially Carter Mountain (one of the largest landslide complexes in the U.S.).

springs are associated. Also please see the response to comment 2 of letter 11.

9. Please see the response to comment 6 of this letter.
10. The occurrence of selenium-accumulating plants was not raised as an issue or concern during the public scoping process. Specific problems with seleniferous or other poisonous plants would be avoided through proper livestock and grazing management practices.
11. Please see the response to comment 3 of letter 77.
12. Please see the response to comment 1 of letter 20.
13. Thank you for pointing out the discrepancy. The Carter Mountain proposed ACEC would not be closed to locatable mineral entry under the proposed plan. We have made a correction in this final document.
14. Chapman Bench is underlain by limestone sand and gravel deposits. A few miles to the south, deposits of this type have been claimed for "uncommon varieties of sand and gravel" and other minerals. On the basis of site-specific evaluations and testing, we do not believe these gravels are "uncommon." Most of the proposed ACEC is segregated from mineral entry by a Bureau of Reclamation withdrawal, but if these lands were opened to mineral entry, sand and gravel claims could be filed on all of Chapman Bench. Gravel mining would not be compatible with management of the area for recovery habitat for the candidate species (see appendix J). If mining claims became established, their removal would require a withdrawal after the fact, which could involve lengthy hearings and appeals.



82.4

Mr. Alan Edwards

June 15, 1988
Page 4

7 8. Page 9, Cultural Resources: Do paleontological resources fall in this category? They are not mentioned. Paleontological resources are included in this category on page 19.

8 9. Page 9-18: There is no mention of the thermal springs in the area. The Geological Survey of Wyoming's Bulletin 60 lists three: Buffalo Bill Reservoir spring, Little Sheep Mountain springs, and Sheep Mountain spring.

9 10. Page 24, Other Hazards and page 27 Utility/Transportation Systems: Landslides have been identified in the RMP area and should be mentioned as they are a threat to roads and other development.

Shrinking-swelling clays are also potential hazards in the area and are not mentioned.

10 11. Page 32, Livestock grazing: Potentially seleniferous areas are not discussed. This is particularly important where plants are growing on the Cody Shale. In addition, seleniferous plants have been found growing on the Willwood Formation in the Bighorn Basin.

12. Page 41, last line: See comment (B) above.

13. Page 43-44, Watershed Management: Slope movements need to be taken into account as they can contribute significant amounts of sediment to streams.

14. Map 44: This map or another should show landslides.

15. Map 47: This map should also show areas with seleniferous accumulator plants.

16. Pages 219, 243, 257, and 271, Cultural Resources: Is palentology included here?

11 17. In regard to the ACECs, I believe that Alternative B is most preferable; Alternative A is the next most preferable. As justification, how can management decisions on ACECs be made without better substantiation of the potential mineral resources within each proposed ACEC area (see comment (1) above)? For example, we have published an open file report (OFR 86-4) that shows gold anomalies in both the Chapman Bench and the Five Springs Falls ACECs. There are alternative management strategies that need to be considered in addition to simply designating ACECs or withdrawing lands.

12 In regard to the Sheep Mountain Anticline, there is no justification for closing the entire ACEC to locatable mineral exploration and development (BLM's preferred alternative). The area, while a potentially valuable

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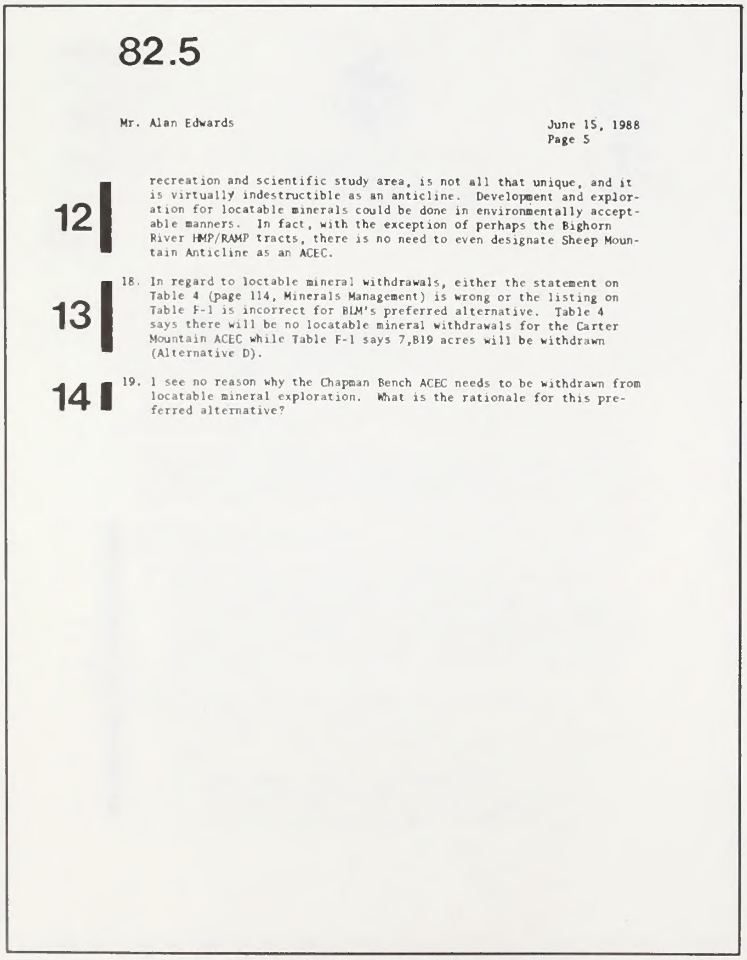

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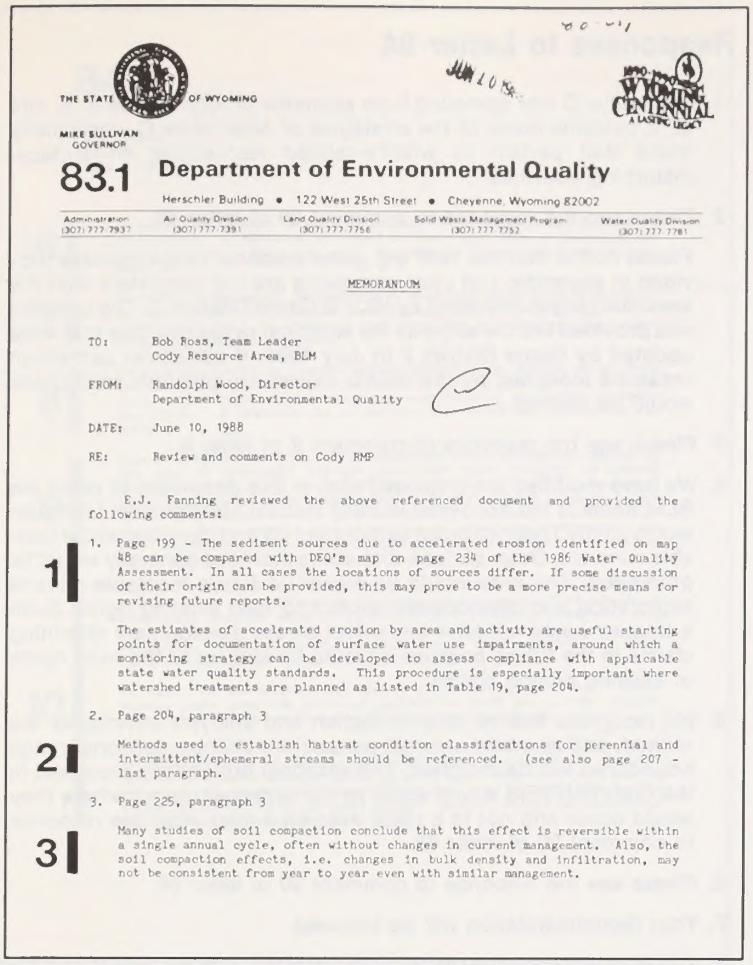
Mr. Alan Edwards

June 15, 1988
Page 5

12 recreation and scientific study area, is not all that unique, and it is virtually indestructible as an anticline. Development and exploration for locatable minerals could be done in environmentally acceptable manners. In fact, with the exception of perhaps the Bighorn River HMP/RAMP tracts, there is no need to even designate Sheep Mountain Anticline as an ACEC.

13 18. In regard to loctable mineral withdrawals, either the statement on Table 4 (page 114, Minerals Management) is wrong or the listing on Table F-1 is incorrect for BLM's preferred alternative. Table 4 says there will be no locatable mineral withdrawals for the Carter Mountain ACEC while Table F-1 says 7,B19 acres will be withdrawn (Alternative D).

14 19. I see no reason why the Chapman Bench ACEC needs to be withdrawn from locatable mineral exploration. What is the rationale for this preferred alternative?



JUN 10 '88

THE STATE OF WYOMING

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83.1

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MEMORANDUM

TO: Bob Ross, Team Leader
Cody Resource Area, BLM

FROM: Randolph Wood, Director
Department of Environmental Quality

DATE: June 10, 1988

RE: Review and comments on Cody RMP

E.J. Fanning reviewed the above referenced document and provided the following comments:

1 1. Page 199 - The sediment sources due to accelerated erosion identified on map 48 can be compared with DEQ's map on page 234 of the 1986 Water Quality Assessment. In all cases the locations of sources differ. If some discussion of their origin can be provided, this may prove to be a more precise means for revising future reports.

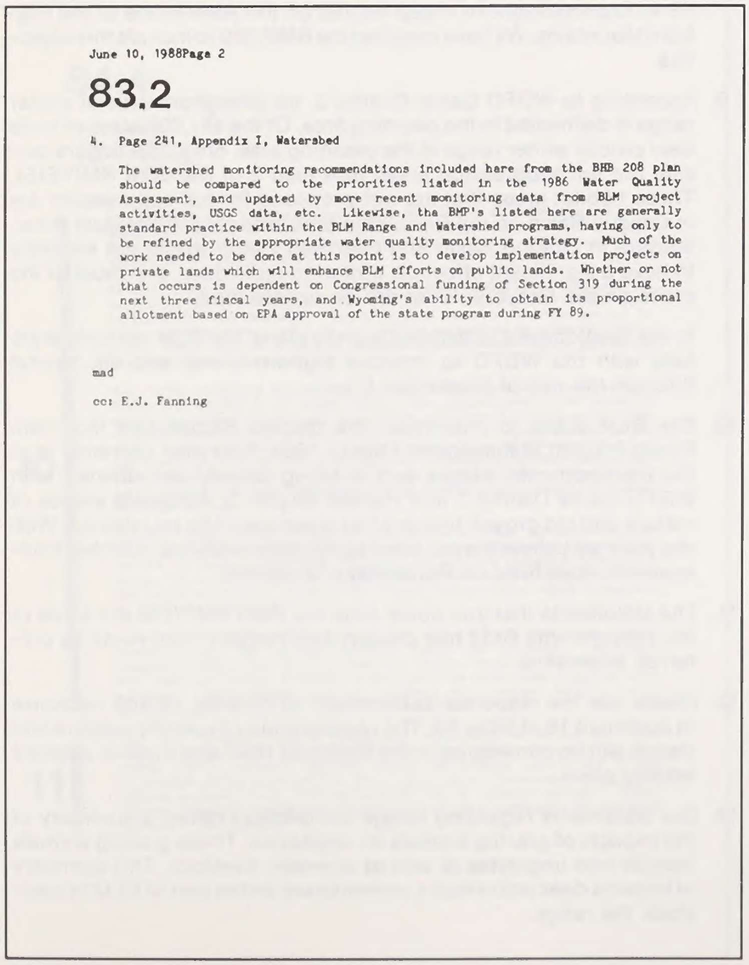
The estimates of accelerated erosion by area and activity are useful starting points for documentation of surface water use impairments, around which a monitoring strategy can be developed to assess compliance with applicable state water quality standards. This procedure is especially important where watershed treatments are planned as listed in Table 19, page 204.

2. Page 204, paragraph 3

2 Methods used to establish habitat condition classifications for perennial and intermittent/ephemeral streams should be referenced. (see also page 207 - last paragraph.

3. Page 225, paragraph 3

3 Many studies of soil compaction conclude that this effect is reversible within a single annual cycle, often without changes in current management. Also, the soil compaction effects, i.e. changes in bulk density and infiltration, may not be consistent from year to year even with similar management.



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4. Page 241, Appendix I, Watarsbed

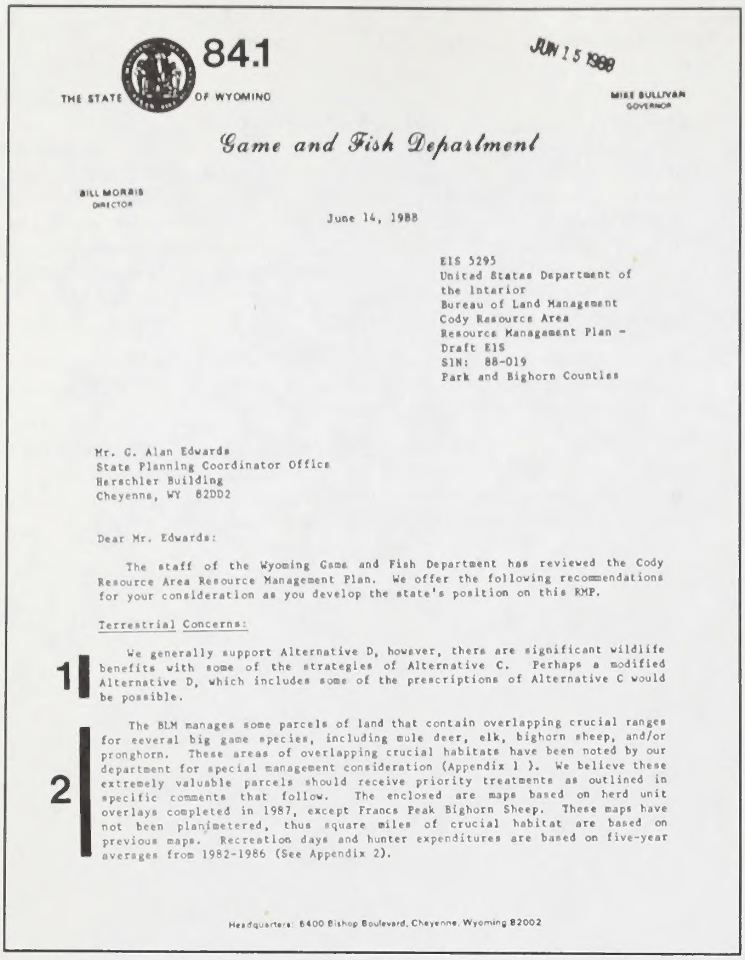
The watershed monitoring racommendations included hare from the BHB 208 plan should be compared to tbe priorities liatad in tbe 1986 Water Quality Assessment, and updated by more recant monitoring data from BLM project activities, USGS data, etc. Likewise, tha BMP's listed here are ganerally standard practice within the BLM Range and Watershed programs, having only to be refined by the appropriate water quality monitoring atrategy. Much of the work needed to be done at this point is to develop implementation projects on private lands which will enhance BLM efforts on public lands. Whether or not that occurs is dependent on Congressional funding of Section 319 during the next three fiscal years, and Wyoming's ability to obtain its proportional allotment based on EPA approval of the state program during FY 89.

mad

cc: E.J. Fanning

Responses to Letter 83

1. Map 48 indicates stream segments that are impaired by sediment from nonpoint sources primarily from rangelands, not sediment source areas as illustrated on DEQ's map. The stream segments identified by BLM are within drainages that we have good management control over because of the land ownership pattern. Map 17 of the draft RMP/EIS illustrates the top two priority areas for improvement through detailed activity plans, including watershed management plans. Our identification of impaired stream segments was based on sediment yield estimates generated by the Pacific Southwest Inter-Agency Committee (PSIAC) method.
2. Stream habitat conditions were classified according to "Condition Classes for Streambanks and Shorelines" (*Federal Register*, February 5, 1980, volume 45, pages 7889 through 7895).
3. The point of our discussion on page 225 of the draft RMP/EIS was to give a general description of the compaction process and its ramifications. Soil compaction usually will negatively impact the soil surface during whatever time period the compaction persists.



84.1

JUN 15 1988

THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

Game and Fish Department

BILL MORRIS
DIRECTOR

June 14, 1988

EIS 5295
United States Department of
the Interior
Bureau of Land Management
Cody Resource Area
Resource Management Plan -
Draft EIS
SIN: 88-019
Park and Bighorn Counties

Mr. G. Alan Edwards
State Planning Coordinator Office
Herschler Building
Cheyenne, WY 82002

Dear Mr. Edwards:

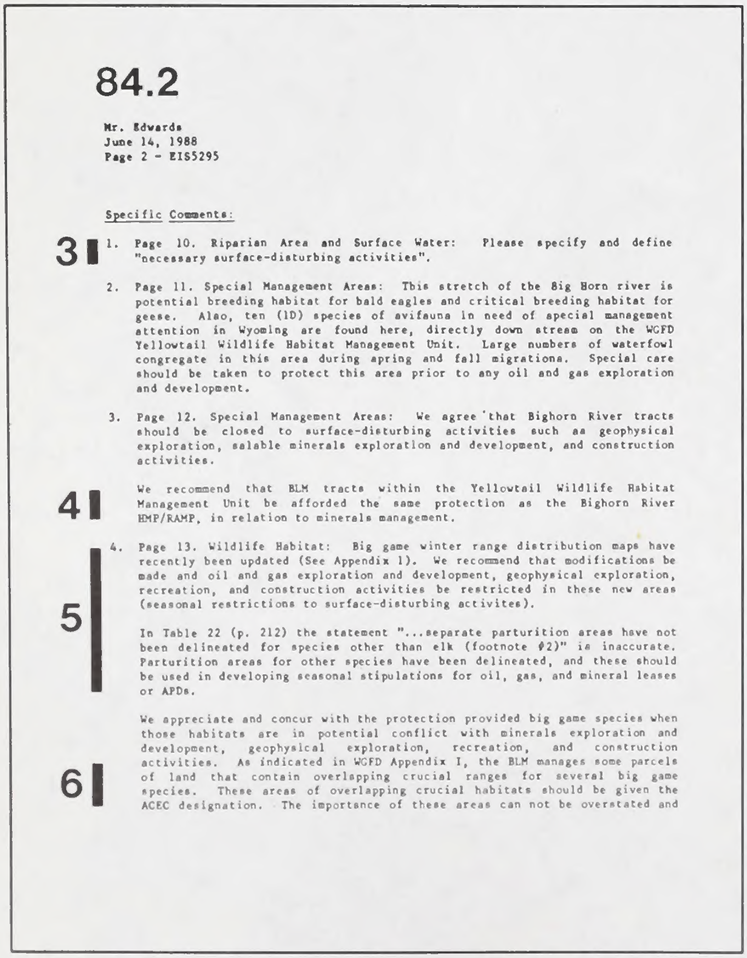
The staff of the Wyoming Game and Fish Department has reviewed the Cody Resource Area Resource Management Plan. We offer the following recommendations for your consideration as you develop the state's position on this RMP.

Terrestrial Concerns:

1 We generally support Alternative D, however, there are significant wildlife benefits with some of the strategies of Alternative C. Perhaps a modified Alternative D, which includes some of the prescriptions of Alternative C would be possible.

2 The BLM manages some parcels of land that contain overlapping crucial ranges for several big game species, including mule deer, elk, bighorn sheep, and/or pronghorn. These areas of overlapping crucial habitats have been noted by our department for special management consideration (Appendix 1). We believe these extremely valuable parcels should receive priority treatments as outlined in specific comments that follow. The enclosed are maps based on herd unit overlays completed in 1987, except Francs Peak Bighorn Sheep. These maps have not been planimetered, thus square miles of crucial habitat are based on previous maps. Recreation days and hunter expenditures are based on five-year averages from 1982-1986 (See Appendix 2).

Headquarters: 5400 Bishop Boulevard, Cheyenne, Wyoming 82002



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Specific Comments:

3 1. Page 10. Riparian Area and Surface Water: Please specify and define "necessary surface-disturbing activities".

2. Page 11. Special Management Areas: This stretch of the Big Horn river is potential breeding habitat for bald eagles and critical breeding habitat for geese. Also, ten (10) species of avifauna in need of special management attention in Wyoming are found here, directly down stream on the WGFD Yellowtail Wildlife Habitat Management Unit. Large numbers of waterfowl congregate in this area during spring and fall migrations. Special care should be taken to protect this area prior to any oil and gas exploration and development.

3. Page 12. Special Management Areas: We agree that Bighorn River tracts should be closed to surface-disturbing activities such as geophysical exploration, salable minerals exploration and development, and construction activities.

4 We recommend that BLM tracts within the Yellowtail Wildlife Habitat Management Unit be afforded the same protection as the Bighorn River HMP/RAMP, in relation to minerals management.

5 4. Page 13. Wildlife Habitat: Big game winter range distribution maps have recently been updated (See Appendix 1). We recommend that modifications be made and oil and gas exploration and development, geophysical exploration, recreation, and construction activities be restricted in these new areas (seasonal restrictions to surface-disturbing activites).

In Table 22 (p. 212) the statement "...separate parturition areas have not been delineated for species other than elk (footnote #2)" is inaccurate. Parturition areas for other species have been delineated, and these should be used in developing seasonal stipulations for oil, gas, and mineral leases or APDs.

6 We appreciate and concur with the protection provided big game species when those habitats are in potential conflict with minerals exploration and development, geophysical exploration, recreation, and construction activities. As indicated in WGFD Appendix I, the BLM manages some parcels of land that contain overlapping crucial ranges for several big game species. These areas of overlapping crucial habitats should be given the ACEC designation. The importance of these areas can not be overstated and

Responses to Letter 84

1. Alternative D was compiled from elements of Alternatives A, B, and C. It contains many of the strategies of Alternative C, particularly those that pertain to wildlife-related restrictions on surface-disturbing activities.

2. Please see the response to comment 20 of letter 68.

   Please notice that the 1987 big game seasonal range overlays provided in appendix 1 of your comments are not consistent with the seasonal ranges identified by WGFD Game Division 2. The overlays you provided are the same as the seasonal range overlays that were updated by Game District 2 in July 1986. If additional parturition areas are identified by the WGFD, necessary seasonal restrictions would be applied.

3. Please see the response to comment 2 of letter 6.

4. We have modified the proposed plan in this document to make the BLM tracts in the Yellowtail Wildlife Habitat Management Unit subject to an NSO restriction for exploration for and development of leasable minerals. Other surface-disturbing activities generally would be prohibited. The area would be closed to future locatable mineral exploration and development subject to valid existing rights. Such a closure would not have any effect on the development of mining claims in the future because it would be subject to the valid rights of existing mining claims.

5. We recognize that as data collection and analysis techniques are refined, and as environmental parameters change, seasonal range boundaries will be modified. The seasonal protections proposed in the draft RMP/EIS would apply to the seasonal ranges where they would occur and not to a static area on a map. Also see response to comment 20 of letter 68.

6. Please see the response to comment 20 of letter 68.

7. Your recommendation will be followed.

8. The BLM will continue the cooperative effort with the WGFD and the FS to improve bighorn sheep habitat on the West Slope of the Bighorn Mountains. We have modified the RMP/EIS to include this objective.

9. According to WGFD Game District 2, no pronghorn crucial winter range is delineated in the planning area. Of the 451,000 acres of mule deer crucial winter range in the planning area, only 7.5% occurs outside the full suppression areas (see map 2 of the draft RMP/EIS). These habitat areas that are not proposed for full suppression are in Oregon Basin, in the Red Cabin area, and on the Greybull River. Wildfire in Oregon Basin and near Red Cabin would not be likely to have a significant effect on wintering mule deer, and most of the areas on the Greybull River are on private land.

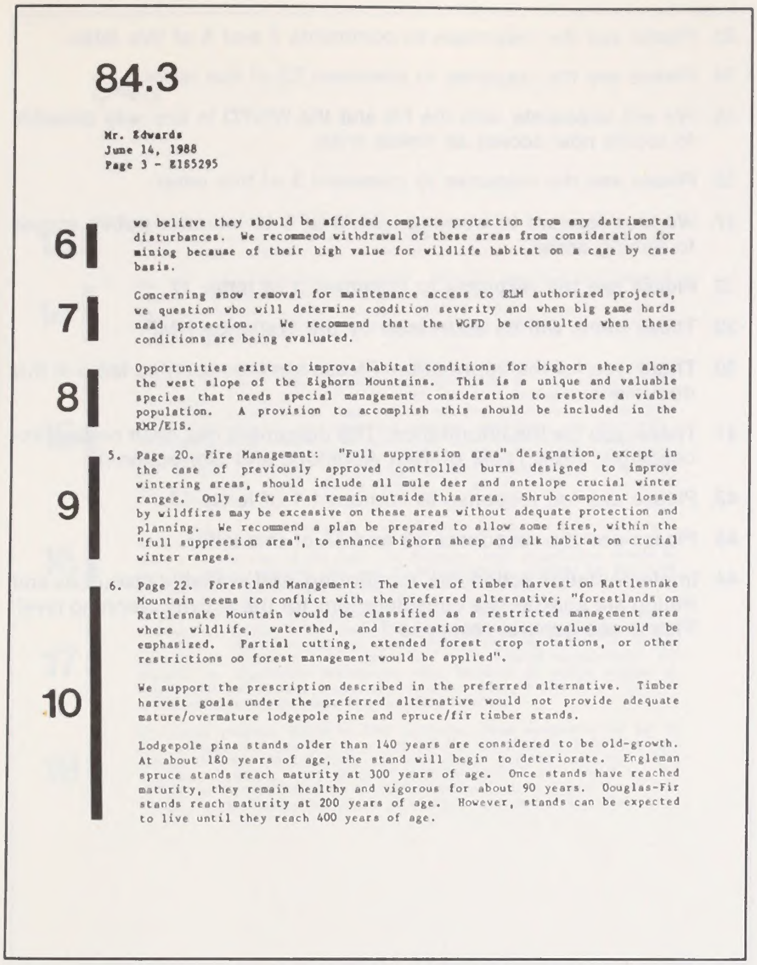
   In the development of detailed activity plans, the BLM will cooperate fully with the WGFD to improve bighorn sheep and elk habitat through the use of prescribed fire.

10. The BLM plans to implement the revised Rattlesnake Mountain Forest/Habitat Management Plan in 1989. This plan currently is in the developmental stages and is being closely coordinated with WGFD Game District 2 and Habitat Region 2. Adequate stands of mature and old growth timber of all types would be maintained. With this plan, we believe we can accomplish both wildlife and timber management objectives on Rattlesnake Mountain.

11. The statements that you quote from the draft RMP/EIS are some of the reasons why BLM has chosen Alternative D, not A, as its preferred alternative.

12. Please see the response to comment 10 of letter 19 and response to comment 18 of letter 68. The regeneration of specific cottonwood stands will be considered in the Wetlands HMP and in other detailed activity plans.

13. Our statements regarding forage competition reflect a summary of the impacts of grazing animals on vegetation. These grazing animals include wild ungulates as well as domestic livestock. This summary of impacts does not reflect a commitment on the part of BLM to overstock the range.



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6 we believe they should be afforded complete protection from any detrimental disturbances. We recommend withdrawal of these areas from consideration for mining because of their high value for wildlife habitat on a case by case basis.

7 Concerning snow removal for maintenance access to BLM authorized projects, we question who will determine condition severity and when big game herds need protection. We recommend that the WGFD be consulted when these conditions are being evaluated.

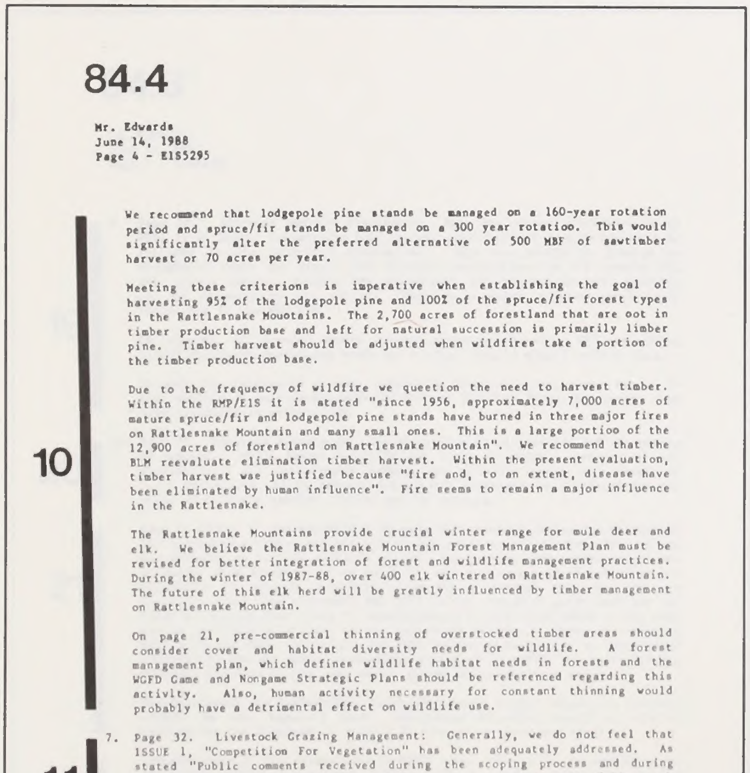
8 Opportunities exist to improve habitat conditions for bighorn sheep along the west slope of the Bighorn Mountains. This is a unique and valuable species that needs special management consideration to restore a viable population. A provision to accomplish this should be included in the RMP/EIS.

9 5. Page 20. Fire Management: "Full suppression area" designation, except in the case of previously approved controlled burns designed to improve wintering areas, should include all mule deer and antelope crucial winter ranges. Only a few areas remain outside this area. Shrub component losses by wildfires may be excessive on these areas without adequate protection and planning. We recommend a plan be prepared to allow some fires, within the "full suppression area", to enhance bighorn sheep and elk habitat on crucial winter ranges.

10 6. Page 22. Forestland Management: The level of timber harvest on Rattlesnake Mountain seems to conflict with the preferred alternative; "forestlands on Rattlesnake Mountain would be classified as a restricted management area where wildlife, watershed, and recreation resource values would be emphasized. Partial cutting, extended forest crop rotations, or other restrictions on forest management would be applied".

We support the prescription described in the preferred alternative. Timber harvest goals under the preferred alternative would not provide adequate mature/overmature lodgepole pine and spruce/fir timber stands.

Lodgepole pine stands older than 140 years are considered to be old-growth. At about 180 years of age, the stand will begin to deteriorate. Engleman spruce stands reach maturity at 300 years of age. Once stands have reached maturity, they remain healthy and vigorous for about 90 years. Douglas-Fir stands reach maturity at 200 years of age. However, stands can be expected to live until they reach 400 years of age.



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10 We recommend that lodgepole pine stands be managed on a 160-year rotation period and spruce/fir stands be managed on a 300 year rotation. This would significantly alter the preferred alternative of 500 MBF of sawtimber harvest or 70 acres per year.

Meeting these criterions is imperative when establishing the goal of harvesting 95% of the lodgepole pine and 100% of the spruce/fir forest types in the Rattlesnake Mountains. The 2,700 acres of forestland that are not in timber production base and left for natural succession is primarily limber pine. Timber harvest should be adjusted when wildfires take a portion of the timber production base.

Due to the frequency of wildfire we question the need to harvest timber. Within the RMP/EIS it is stated "since 1956, approximately 7,000 acres of mature spruce/fir and lodgepole pine stands have burned in three major fires on Rattlesnake Mountain and many small ones. This is a large portion of the 12,900 acres of forestland on Rattlesnake Mountain". We recommend that the BLM reevaluate elimination timber harvest. Within the present evaluation, timber harvest was justified because "fire and, to an extent, disease have been eliminated by human influence". Fire seems to remain a major influence in the Rattlesnake.

The Rattlesnake Mountains provide crucial winter range for mule deer and elk. We believe the Rattlesnake Mountain Forest Management Plan must be revised for better integration of forest and wildlife management practices. During the winter of 1987-88, over 400 elk wintered on Rattlesnake Mountain. The future of this elk herd will be greatly influenced by timber management on Rattlesnake Mountain.

On page 21, pre-commercial thinning of overstocked timber areas should consider cover and habitat diversity needs for wildlife. A forest management plan, which defines wildlife habitat needs in forests and the WGFD Game and Nongame Strategic Plans should be referenced regarding this activity. Also, human activity necessary for constant thinning would probably have a detrimental effect on wildlife use.

11 7. Page 32. Livestock Grazing Management: Generally, we do not feel that ISSUE 1, "Competition For Vegetation" has been adequately addressed. As stated "Public comments received during the scoping process and during preparation of the draft RMP/EIS indicated a general acceptance of livestock grazing on public land, provided such grazing is properly managed". Under current livestock grazing intensities "proper" range management has not been realized. For example:

We have just begun to monitor livestock forage utilization in the high priority "I" category allotments and do not have sufficient data to display utilization levels in the final EIS. The data collected so far is available for review in the Cody Resource Area office.

14. Livestock grazing would be excluded on the Bighorn River tracts because it is inconsistent with management objectives for the wildlife resources in the area. This is not the situation in the Yellowtail Wildlife Habitat Management Unit. During 1987, the BLM consulted the habitat supervisor, WGFD Habitat Region 2, and updated a memorandum of understanding (MOU) for the management of public lands within the unit. This MOU was signed by the WGFD in December 1987. Livestock grazing was cooperatively examined on all BLM river tracts in the unit and any needed corrective measures have already been implemented under the MOU.

15. The WGFD Wildlife Land Use Management Plan was consulted during the allotment categorization process for the purpose of determining which allotments would receive priority management. Wildlife and livestock forage conflicts were very important factors in our tentative identification of "I" category allotments which are our top priority areas of AMP development and intensive management. Few "C" category allotments were identified where crucial wildlife ranges reflect serious forage competition with livestock, wild horses, or other wildlife species. If our future monitoring efforts indicate conflicts, allotment categories can be changed to address the concerns or problems.

16. Please see the response to comment 9 of letter 19.

17. Please see the response to comment 4 of letter 6 and response to comment 2 of letter 21.

18. Please see the response to comment 6 of letter 59.

19. Please see the response to comment 4 of letter 10.

20. Please see the response to comment 20 of letter 68.

21. Please see the response to comment 4 of letter 77.

22. Please see general response 4 and response to comment 6 of letter 3.

23. Please see the response to comment 17 of letter 68.

24. Applications for reservoir construction on public land by BLM permittees can be approved under a cooperative agreement or section 4 or section 15 permit under the Taylor Grazing Act. These approvals would require that the projects meet multiple use objectives and there would be no cost to the applicant for application fees, monitoring fees, or right-of-way cost recovery.

25. Cottonwood riparian woodlands are wetlands and therefore are included as important wildlife habitats to be maintained or improved. We concur on the importance of sagebrush within 500 feet of water. Please see page 10 of the draft RMP/EIS.

26. Please see the response to comment 19 of letter 68.

27. Please see the response to comment 3 of letter 6 and response to comment 2 of letter 77.

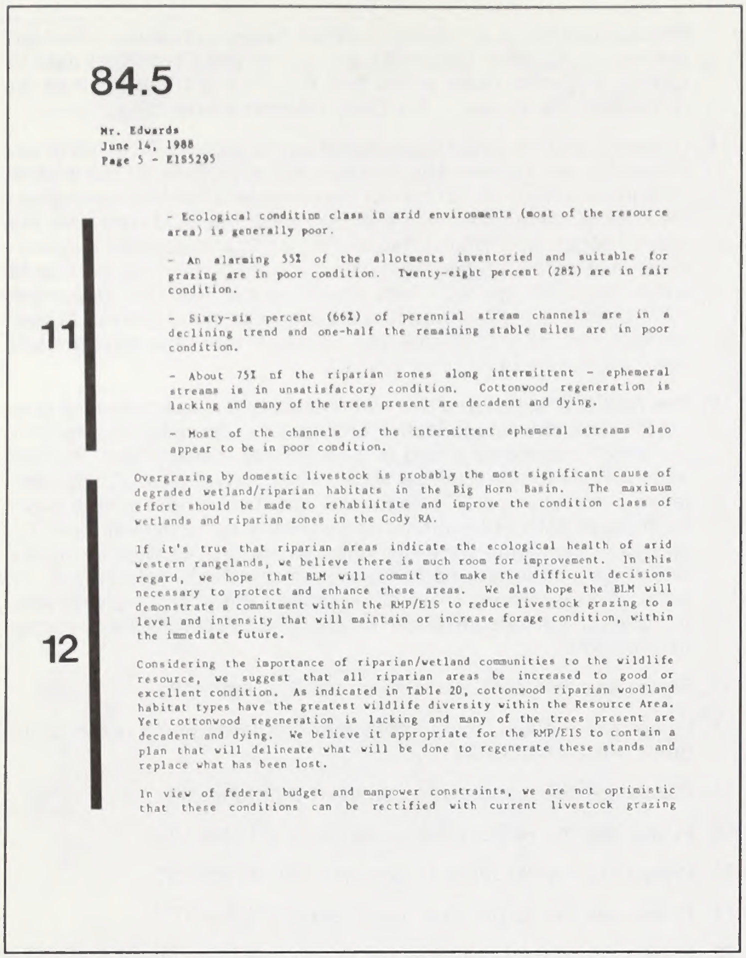
28. See response to comment 13 of letter 68.

29. Thank you for the information. We will use this as we maintain and update the RMP.

30. Please see the response to comment 12 of letter 19.

31. Table 46 reflects the greater importance we place on long-term management over short-term management. The acreage figures shown in the right column were considered to be satisfactory for wildlife resources, and were expected to remain stable or improve slightly over the long-term as livestock management improves.

32. The figures and statements in tables 21 and 47 came from the Annual Big Game Herd Unit Reports, 1984, for WGFD District II. The projected declines in some big game ungulate populations over the next ten years (short-term) is understandable if you refer to table 46. Much of the current available habitat is in decline, and we anticipate that it will require ten years to halt this decline on those acres shown in the second column from the right. This reflects our best estimate under the preferred alternative.



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11 - Ecological condition class in arid environments (most of the resource area) is generally poor.

- An alarming 55% of the allotments inventoried and suitable for grazing are in poor condition. Twenty-eight percent (28%) are in fair condition.

- Sixty-six percent (66%) of perennial stream channels are in a declining trend and one-half the remaining stable miles are in poor condition.

- About 75% of the riparian zones along intermittent - ephemeral streams is in unsatisfactory condition. Cottonwood regeneration is lacking and many of the trees present are decadent and dying.

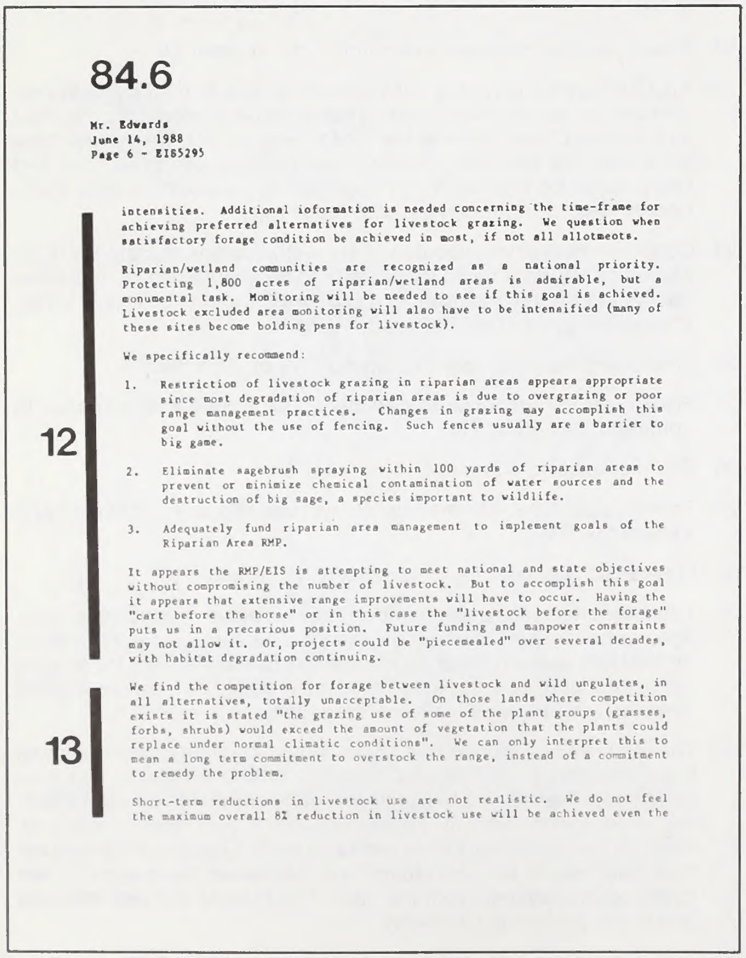
- Most of the channels of the intermittent ephemeral streams also appear to be in poor condition.

12 Overgrazing by domestic livestock is probably the most significant cause of degraded wetland/riparian habitats in the Big Horn Basin. The maximum effort should be made to rehabilitate and improve the condition class of wetlands and riparian zones in the Cody RA.

If it's true that riparian areas indicate the ecological health of arid western rangelands, we believe there is much room for improvement. In this regard, we hope that BLM will commit to make the difficult decisions necessary to protect and enhance these areas. We also hope the BLM will demonstrate a commitment within the RMP/EIS to reduce livestock grazing to a level and intensity that will maintain or increase forage condition, within the immediate future.

Considering the importance of riparian/wetland communities to the wildlife resource, we suggest that all riparian areas be increased to good or excellent condition. As indicated in Table 20, cottonwood riparian woodland habitat types have the greatest wildlife diversity within the Resource Area. Yet cottonwood regeneration is lacking and many of the trees present are decadent and dying. We believe it appropriate for the RMP/EIS to contain a plan that will delineate what will be done to regenerate these stands and replace what has been lost.

In view of federal budget and manpower constraints, we are not optimistic that these conditions can be rectified with current livestock grazing



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12 intensities. Additional information is needed concerning the time-frame for achieving preferred alternatives for livestock grazing. We question when satisfactory forage condition be achieved in most, if not all allotments.

Riparian/wetland communities are recognized as a national priority. Protecting 1,800 acres of riparian/wetland areas is admirable, but a monumental task. Monitoring will be needed to see if this goal is achieved. Livestock excluded area monitoring will also have to be intensified (many of these sites become holding pens for livestock).

We specifically recommend:

1. Restriction of livestock grazing in riparian areas appears appropriate since most degradation of riparian areas is due to overgrazing or poor range management practices. Changes in grazing may accomplish this goal without the use of fencing. Such fences usually are a barrier to big game.

2. Eliminate sagebrush spraying within 100 yards of riparian areas to prevent or minimize chemical contamination of water sources and the destruction of big sage, a species important to wildlife.

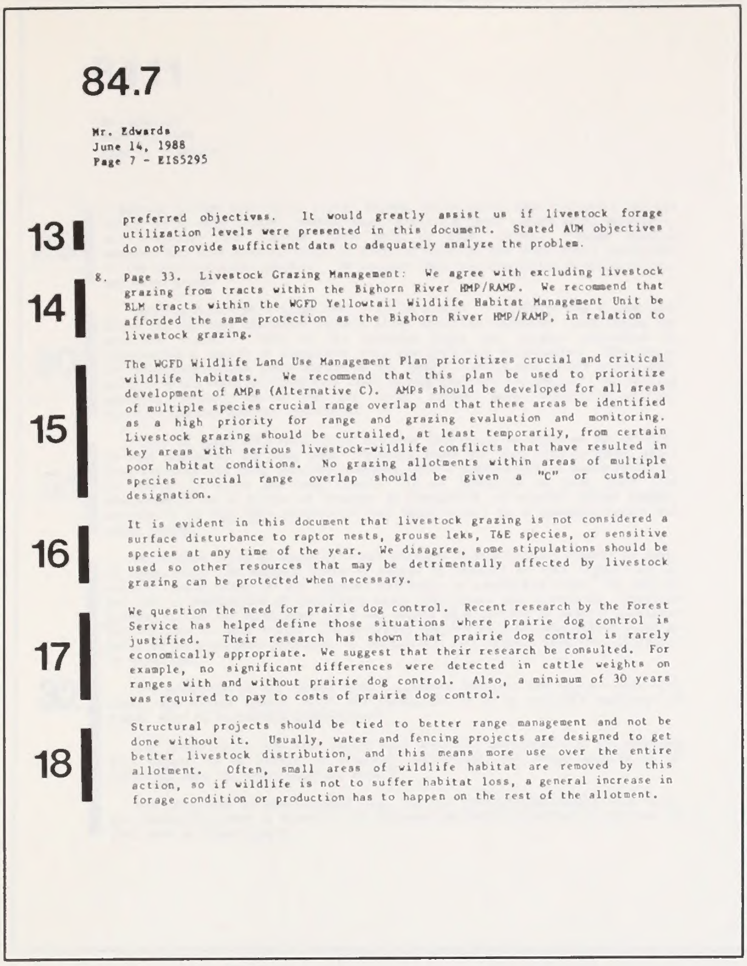
3. Adequately fund riparian area management to implement goals of the Riparian Area RMP.

It appears the RMP/EIS is attempting to meet national and state objectives without compromising the number of livestock. But to accomplish this goal it appears that extensive range improvements will have to occur. Having the "cart before the horse" or in this case the "livestock before the forage" puts us in a precarious position. Future funding and manpower constraints may not allow it. Or, projects could be "piecemealed" over several decades, with habitat degradation continuing.

13 We find the competition for forage between livestock and wild ungulates, in all alternatives, totally unacceptable. On those lands where competition exists it is stated "the grazing use of some of the plant groups (grasses, forbs, shrubs) would exceed the amount of vegetation that the plants could replace under normal climatic conditions". We can only interpret this to mean a long term commitment to overstock the range, instead of a commitment to remedy the problem.

Short-term reductions in livestock use are not realistic. We do not feel the maximum overall 8% reduction in livestock use will be achieved even the

33. Please see the responses to comments 2 and 5 of this letter.
34. Please see the response to comment 32 of this letter.
35. We will cooperate with the FS and the WGFD in any way possible to locate new access as needs arise.
36. Please see the response to comment 3 of this letter.
37. We look forward to working with WGFD to increase public access to fishing areas.
38. Please see the response to comment 1 of letter 77.
39. These items will be addressed by the Wetlands HMP.
40. Thank you for the information. Please see the reprinted table in this document.
41. Thank you for the information. The document has been revised accordingly. (See Table of Text Additions and Corrections).
42. Please see the response to comment 1 of letter 77.
43. Please see the responses 35 and 37 of this letter.
44. Implementation schedules, monitoring, and available resources and timing are appropriate considerations for the activity planning level. Please see general response 1.



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13 preferred objectives. It would greatly assist us if livestock forage utilization levels were presented in this document. Stated AUM objectives do not provide sufficient data to adequately analyze the problem.

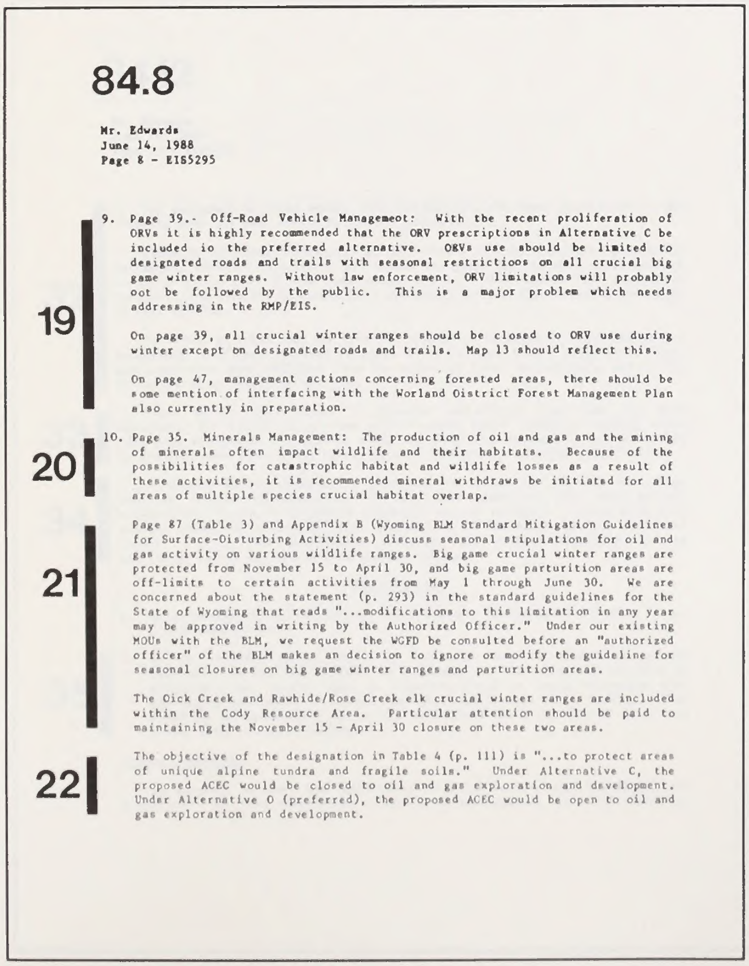
14 8. Page 33. Livestock Grazing Management: We agree with excluding livestock grazing from tracts within the Bighorn River HMP/RAMP. We recommend that BLM tracts within the WGFD Yellowtail Wildlife Habitat Management Unit be afforded the same protection as the Bighorn River HMP/RAMP, in relation to livestock grazing.

15 The WGFD Wildlife Land Use Management Plan prioritizes crucial and critical wildlife habitats. We recommend that this plan be used to prioritize development of AMPs (Alternative C). AMPs should be developed for all areas of multiple species crucial range overlap and that these areas be identified as a high priority for range and grazing evaluation and monitoring. Livestock grazing should be curtailed, at least temporarily, from certain key areas with serious livestock-wildlife conflicts that have resulted in poor habitat conditions. No grazing allotments within areas of multiple species crucial range overlap should be given a "C" or custodial designation.

16 It is evident in this document that livestock grazing is not considered a surface disturbance to raptor nests, grouse leks, T&E species, or sensitive species at any time of the year. We disagree, some stipulations should be used so other resources that may be detrimentally affected by livestock grazing can be protected when necessary.

17 We question the need for prairie dog control. Recent research by the Forest Service has helped define those situations where prairie dog control is justified. Their research has shown that prairie dog control is rarely economically appropriate. We suggest that their research be consulted. For example, no significant differences were detected in cattle weights on ranges with and without prairie dog control. Also, a minimum of 30 years was required to pay to costs of prairie dog control.

18 Structural projects should be tied to better range management and not be done without it. Usually, water and fencing projects are designed to get better livestock distribution, and this means more use over the entire allotment. Often, small areas of wildlife habitat are removed by this action, so if wildlife is not to suffer habitat loss, a general increase in forage condition or production has to happen on the rest of the allotment.



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19 9. Page 39.- Off-Road Vehicle Management: With the recent proliferation of ORVs it is highly recommended that the ORV prescriptions in Alternative C be included in the preferred alternative. ORVs use should be limited to designated roads and trails with seasonal restrictions on all crucial big game winter ranges. Without law enforcement, ORV limitations will probably not be followed by the public. This is a major problem which needs addressing in the RMP/EIS.

On page 39, all crucial winter ranges should be closed to ORV use during winter except on designated roads and trails. Map 13 should reflect this.

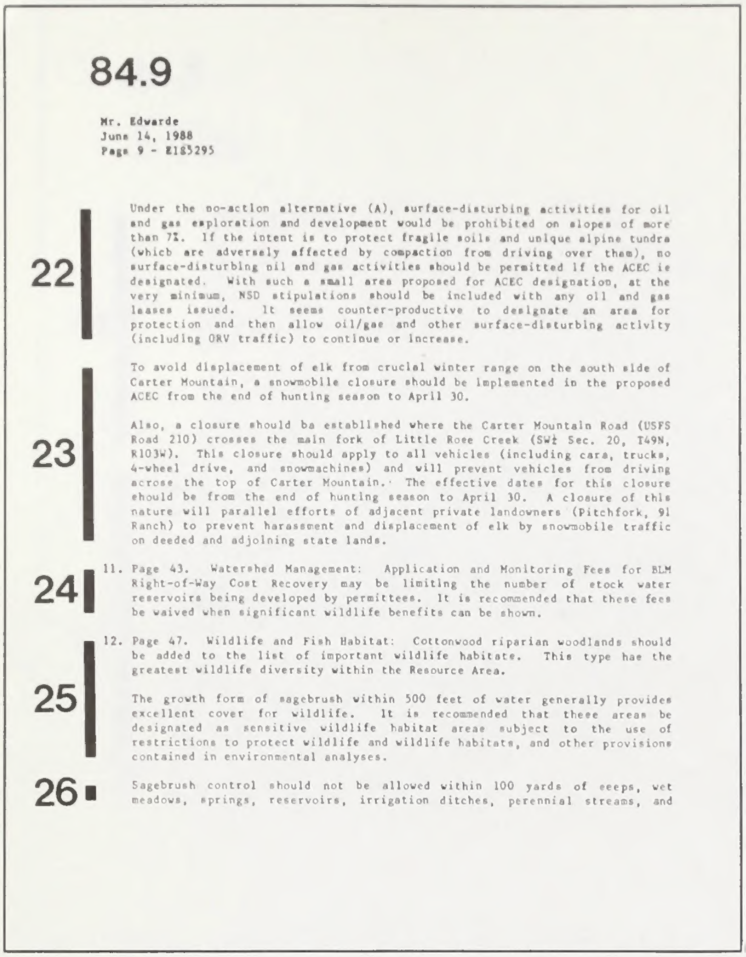
On page 47, management actions concerning forested areas, there should be some mention of interfacing with the Worland District Forest Management Plan also currently in preparation.

20 10. Page 35. Minerals Management: The production of oil and gas and the mining of minerals often impact wildlife and their habitats. Because of the possibilities for catastrophic habitat and wildlife losses as a result of these activities, it is recommended mineral withdraws be initiated for all areas of multiple species crucial habitat overlap.

21 Page 87 (Table 3) and Appendix B (Wyoming BLM Standard Mitigation Guidelines for Surface-Disturbing Activities) discuss seasonal stipulations for oil and gas activity on various wildlife ranges. Big game crucial winter ranges are protected from November 15 to April 30, and big game parturition areas are off-limits to certain activities from May 1 through June 30. We are concerned about the statement (p. 293) in the standard guidelines for the State of Wyoming that reads "...modifications to this limitation in any year may be approved in writing by the Authorized Officer." Under our existing MOUs with the BLM, we request the WGFD be consulted before an "authorized officer" of the BLM makes an decision to ignore or modify the guideline for seasonal closures on big game winter ranges and parturition areas.

The Oick Creek and Rawhide/Rose Creek elk crucial winter ranges are included within the Cody Resource Area. Particular attention should be paid to maintaining the November 15 - April 30 closure on these two areas.

22 The objective of the designation in Table 4 (p. 111) is "...to protect areas of unique alpine tundra and fragile soils." Under Alternative C, the proposed ACEC would be closed to oil and gas exploration and development. Under Alternative O (preferred), the proposed ACEC would be open to oil and gas exploration and development.



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22 Under the no-action alternative (A), surface-disturbing activities for oil and gas exploration and development would be prohibited on slopes of more than 7%. If the intent is to protect fragile soils and unique alpine tundra (which are adversely affected by compaction from driving over them), no surface-disturbing oil and gas activities should be permitted if the ACEC is designated. With such a small area proposed for ACEC designation, at the very minimum, NSD stipulations should be included with any oil and gas leases issued. It seems counter-productive to designate an area for protection and then allow oil/gas and other surface-disturbing activity (including ORV traffic) to continue or increase.

23 To avoid displacement of elk from crucial winter range on the south side of Carter Mountain, a snowmobile closure should be implemented in the proposed ACEC from the end of hunting season to April 30.

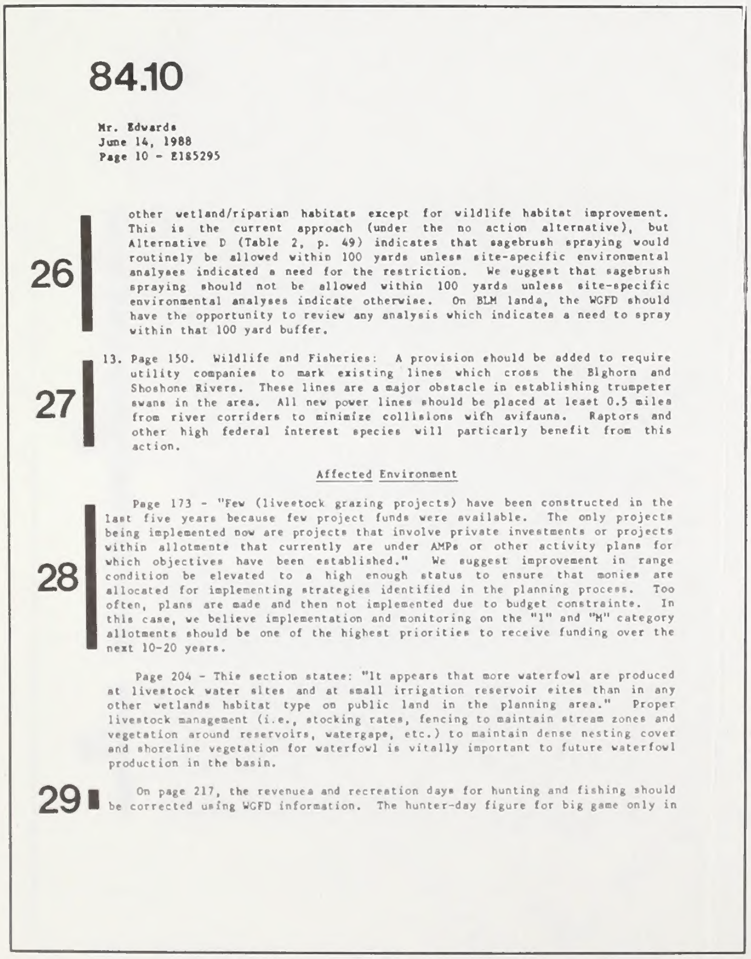
Also, a closure should be established where the Carter Mountain Road (USFS Road 210) crosses the main fork of Little Rose Creek (SW¼ Sec. 20, T49N, R103W). This closure should apply to all vehicles (including cars, trucks, 4-wheel drive, and snowmachines) and will prevent vehicles from driving across the top of Carter Mountain. The effective dates for this closure should be from the end of hunting season to April 30. A closure of this nature will parallel efforts of adjacent private landowners (Pitchfork, 91 Ranch) to prevent harassment and displacement of elk by snowmobile traffic on deeded and adjoining state lands.

24 11. Page 43. Watershed Management: Application and Monitoring Fees for BLM Right-of-Way Cost Recovery may be limiting the number of stock water reservoirs being developed by permittees. It is recommended that these fees be waived when significant wildlife benefits can be shown.

25 12. Page 47. Wildlife and Fish Habitat: Cottonwood riparian woodlands should be added to the list of important wildlife habitats. This type has the greatest wildlife diversity within the Resource Area.

The growth form of sagebrush within 500 feet of water generally provides excellent cover for wildlife. It is recommended that these areas be designated as sensitive wildlife habitat areas subject to the use of restrictions to protect wildlife and wildlife habitats, and other provisions contained in environmental analyses.

26 Sagebrush control should not be allowed within 100 yards of seeps, wet meadows, springs, reservoirs, irrigation ditches, perennial streams, and



84.10

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26 other wetland/riparian habitats except for wildlife habitat improvement. This is the current approach (under the no action alternative), but Alternative D (Table 2, p. 49) indicates that sagebrush spraying would routinely be allowed within 100 yards unless site-specific environmental analyses indicated a need for the restriction. We suggest that sagebrush spraying should not be allowed within 100 yards unless site-specific environmental analyses indicate otherwise. On BLM lands, the WGFD should have the opportunity to review any analysis which indicates a need to spray within that 100 yard buffer.

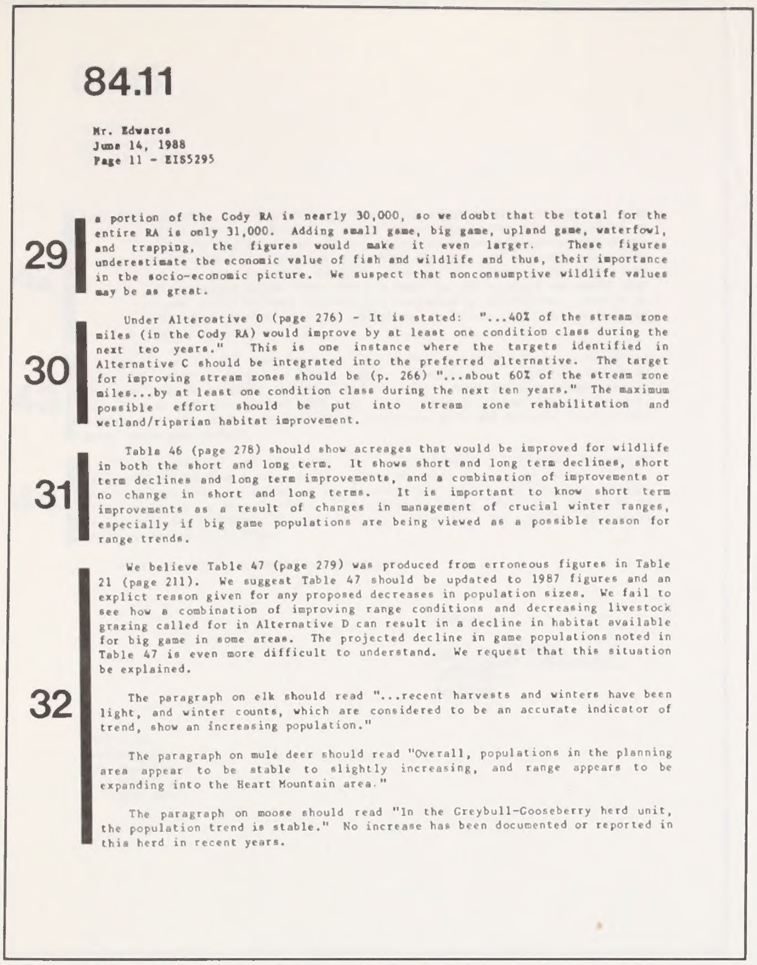
27 13. Page 150. Wildlife and Fisheries: A provision should be added to require utility companies to mark existing lines which cross the Bighorn and Shoshone Rivers. These lines are a major obstacle in establishing trumpeter swans in the area. All new power lines should be placed at least 0.5 miles from river corriders to minimize collisions with avifauna. Raptors and other high federal interest species will particarly benefit from this action.

Affected Environment

28 Page 173 - "Few (livestock grazing projects) have been constructed in the last five years because few project funds were available. The only projects being implemented now are projects that involve private investments or projects within allotments that currently are under AMPs or other activity plans for which objectives have been established." We suggest improvement in range condition be elevated to a high enough status to ensure that monies are allocated for implementing strategies identified in the planning process. Too often, plans are made and then not implemented due to budget constraints. In this case, we believe implementation and monitoring on the "I" and "M" category allotments should be one of the highest priorities to receive funding over the next 10-20 years.

Page 204 - This section states: "It appears that more waterfowl are produced at livestock water sites and at small irrigation reservoir sites than in any other wetlands habitat type on public land in the planning area." Proper livestock management (i.e., stocking rates, fencing to maintain stream zones and vegetation around reservoirs, watergaps, etc.) to maintain dense nesting cover and shoreline vegetation for waterfowl is vitally important to future waterfowl production in the basin.

29 On page 217, the revenues and recreation days for hunting and fishing should be corrected using WGFD information. The hunter-day figure for big game only in



84.11

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29 a portion of the Cody RA is nearly 30,000, so we doubt that the total for the entire RA is only 31,000. Adding small game, big game, upland game, waterfowl, and trapping, the figures would make it even larger. These figures underestimate the economic value of fish and wildlife and thus, their importance in the socio-economic picture. We suspect that nonconsumptive wildlife values may be as great.

30 Under Alternative D (page 276) - It is stated: "...40% of the stream zone miles (in the Cody RA) would improve by at least one condition class during the next ten years." This is one instance where the targets identified in Alternative C should be integrated into the preferred alternative. The target for improving stream zones should be (p. 266) "...about 60% of the stream zone miles...by at least one condition class during the next ten years." The maximum possible effort should be put into stream zone rehabilitation and wetland/riparian habitat improvement.

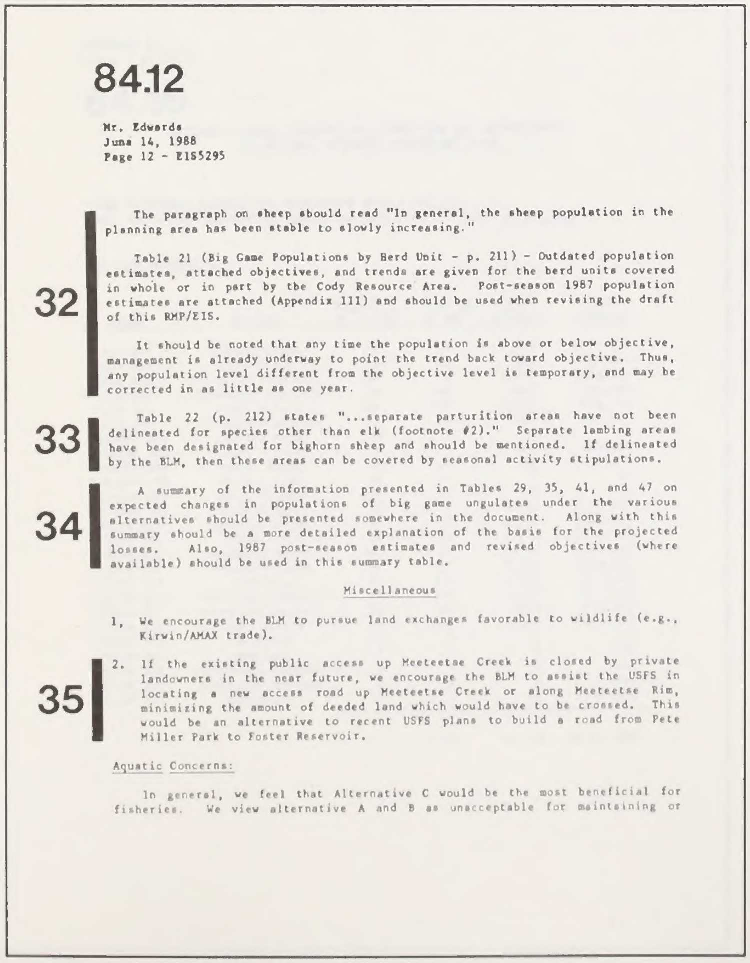
31 Table 46 (page 278) should show acreages that would be improved for wildlife in both the short and long term. It shows short and long term declines, short term declines and long term improvements, and a combination of improvements or no change in short and long terms. It is important to know short term improvements as a result of changes in management of crucial winter ranges, especially if big game populations are being viewed as a possible reason for range trends.

32 We believe Table 47 (page 279) was produced from erroneous figures in Table 21 (page 211). We suggest Table 47 should be updated to 1987 figures and an explict reason given for any proposed decreases in population sizes. We fail to see how a combination of improving range conditions and decreasing livestock grazing called for in Alternative D can result in a decline in habitat available for big game in some areas. The projected decline in game populations noted in Table 47 is even more difficult to understand. We request that this situation be explained.

The paragraph on elk should read "...recent harvests and winters have been light, and winter counts, which are considered to be an accurate indicator of trend, show an increasing population."

The paragraph on mule deer should read "Overall, populations in the planning area appear to be stable to slightly increasing, and range appears to be expanding into the Heart Mountain area."

The paragraph on moose should read "In the Greybull-Gooseberry herd unit, the population trend is stable." No increase has been documented or reported in this herd in recent years.



84.12

Mr. Edwards
June 14, 1988
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32 The paragraph on sheep should read "In general, the sheep population in the planning area has been stable to slowly increasing."

Table 21 (Big Game Populations by Herd Unit - p. 211) - Outdated population estimates, attached objectives, and trends are given for the herd units covered in whole or in part by the Cody Resource Area. Post-season 1987 population estimates are attached (Appendix III) and should be used when revising the draft of this RMP/EIS.

It should be noted that any time the population is above or below objective, management is already underway to point the trend back toward objective. Thus, any population level different from the objective level is temporary, and may be corrected in as little as one year.

33 Table 22 (p. 212) states "...separate parturition areas have not been delineated for species other than elk (footnote #2)." Separate lambing areas have been designated for bighorn sheep and should be mentioned. If delineated by the BLM, then these areas can be covered by seasonal activity stipulations.

34 A summary of the information presented in Tables 29, 35, 41, and 47 on expected changes in populations of big game ungulates under the various alternatives should be presented somewhere in the document. Along with this summary should be a more detailed explanation of the basis for the projected losses. Also, 1987 post-season estimates and revised objectives (where available) should be used in this summary table.

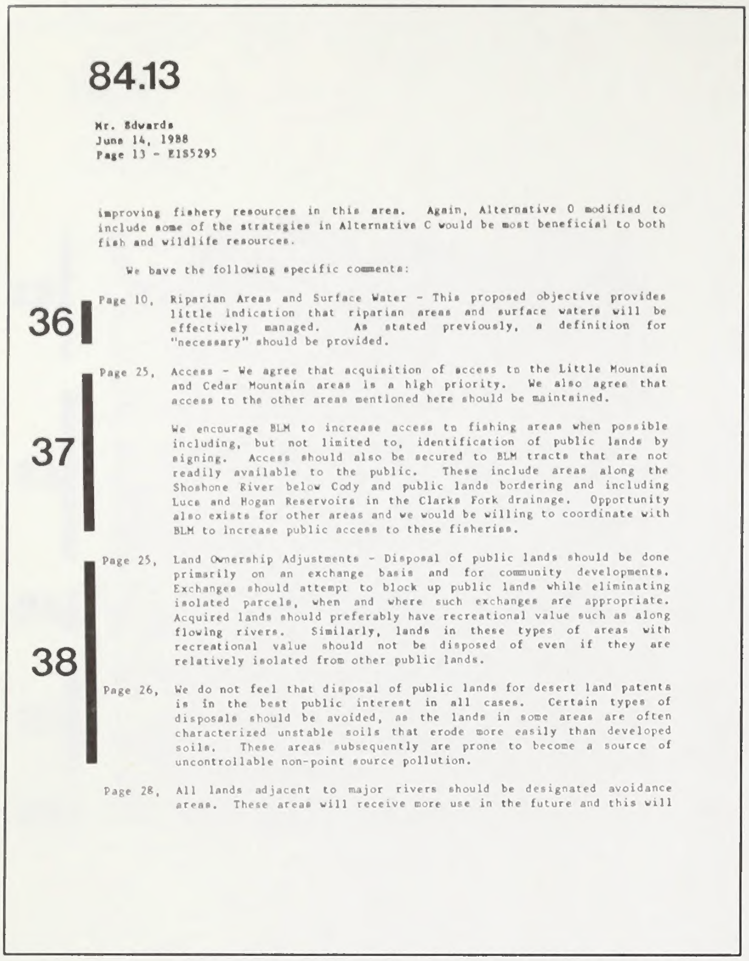
Miscellaneous

1. We encourage the BLM to pursue land exchanges favorable to wildlife (e.g., Kirwin/AMAX trade).

35 2. If the existing public access up Meeteetse Creek is closed by private landowners in the near future, we encourage the BLM to assist the USFS in locating a new access road up Meeteetse Creek or along Meeteetse Rim, minimizing the amount of deeded land which would have to be crossed. This would be an alternative to recent USFS plans to build a road from Pete Miller Park to Foster Reservoir.

Aquatic Concerns:

In general, we feel that Alternative C would be the most beneficial for fisheries. We view alternative A and B as unacceptable for maintaining or



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improving fishery resources in this area. Again, Alternative 0 modified to include some of the strategies in Alternative C would be most beneficial to both fish and wildlife resources.

We have the following specific comments:

36 Page 10, Riparian Areas and Surface Water - This proposed objective provides little indication that riparian areas and surface waters will be effectively managed. As stated previously, a definition for "necessary" should be provided.

37 Page 25, Access - We agree that acquisition of access to the Little Mountain and Cedar Mountain areas is a high priority. We also agree that access to the other areas mentioned here should be maintained.

We encourage BLM to increase access to fishing areas when possible including, but not limited to, identification of public lands by signing. Access should also be secured to BLM tracts that are not readily available to the public. These include areas along the Shoshone River below Cody and public lands bordering and including Luce and Hogan Reservoirs in the Clarks Fork drainage. Opportunity also exists for other areas and we would be willing to coordinate with BLM to increase public access to these fisheries.

38 Page 25, Land Ownership Adjustments - Disposal of public lands should be done primarily on an exchange basis and for community developments. Exchanges should attempt to block up public lands while eliminating isolated parcels, when and where such exchanges are appropriate. Acquired lands should preferably have recreational value such as along flowing rivers. Similarly, lands in these types of areas with recreational value should not be disposed of even if they are relatively isolated from other public lands.

Page 26, We do not feel that disposal of public lands for desert land patents is in the best public interest in all cases. Certain types of disposals should be avoided, as the lands in some areas are often characterized unstable soils that erode more easily than developed soils. These areas subsequently are prone to become a source of uncontrollable non-point source pollution.

Page 28, All lands adjacent to major rivers should be designated avoidance areas. These areas will receive more use in the future and this will

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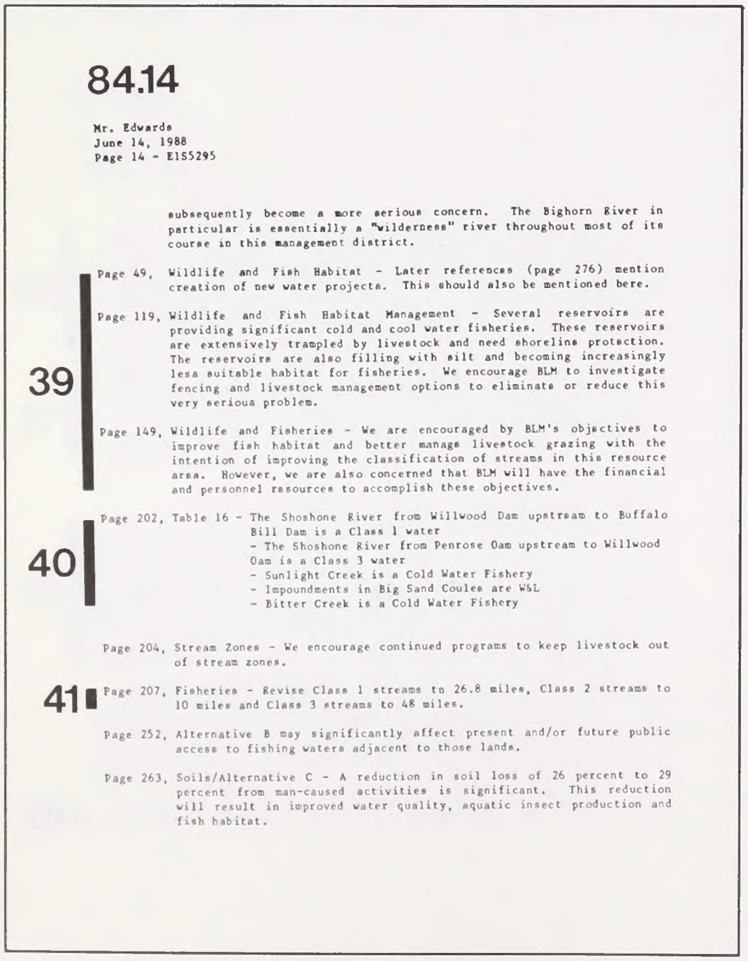

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subsequently become a more serious concern. The Bighorn River in particular is essentially a "wilderness" river throughout most of its course in this management district.

39 Page 49, Wildlife and Fish Habitat - Later references (page 276) mention creation of new water projects. This should also be mentioned here.

Page 119, Wildlife and Fish Habitat Management - Several reservoirs are providing significant cold and cool water fisheries. These reservoirs are extensively trampled by livestock and need shoreline protection. The reservoirs are also filling with silt and becoming increasingly less suitable habitat for fisheries. We encourage BLM to investigate fencing and livestock management options to eliminate or reduce this very serious problem.

Page 149, Wildlife and Fisheries - We are encouraged by BLM's objectives to improve fish habitat and better manage livestock grazing with the intention of improving the classification of streams in this resource area. However, we are also concerned that BLM will have the financial and personnel resources to accomplish these objectives.

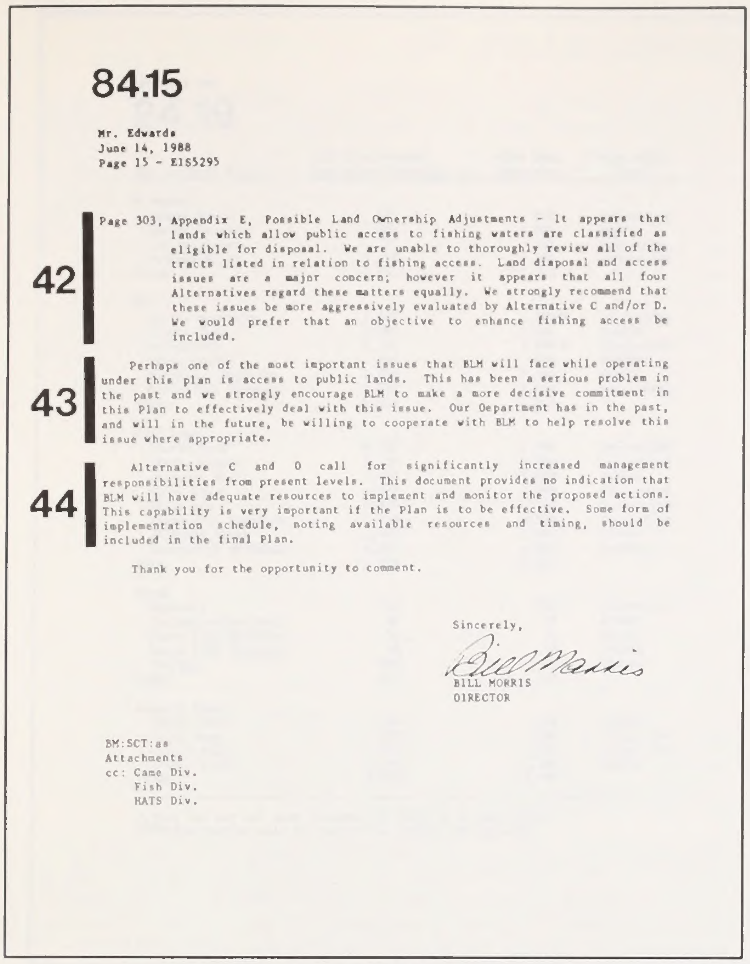
40 Page 202, Table 16 - The Shoshone River from Willwood Dam upstream to Buffalo Bill Dam is a Class 1 water
- The Shoshone River from Penrose Dam upstream to Willwood Dam is a Class 3 water
- Sunlight Creek is a Cold Water Fishery
- Impoundments in Big Sand Coulee are W&L
- Bitter Creek is a Cold Water Fishery

Page 204, Stream Zones - We encourage continued programs to keep livestock out of stream zones.

41 Page 207, Fisheries - Revise Class 1 streams to 26.8 miles, Class 2 streams to 10 miles and Class 3 streams to 48 miles.

Page 252, Alternative B may significantly affect present and/or future public access to fishing waters adjacent to those lands.

Page 263, Soils/Alternative C - A reduction in soil loss of 26 percent to 29 percent from man-caused activities is significant. This reduction will result in improved water quality, aquatic insect production and fish habitat.



84.15

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42 Page 303, Appendix E, Possible Land Ownership Adjustments - It appears that lands which allow public access to fishing waters are classified as eligible for disposal. We are unable to thoroughly review all of the tracts listed in relation to fishing access. Land disposal and access issues are a major concern; however it appears that all four Alternatives regard these matters equally. We strongly recommend that these issues be more aggressively evaluated by Alternative C and/or D. We would prefer that an objective to enhance fishing access be included.

43 Perhaps one of the most important issues that BLM will face while operating under this plan is access to public lands. This has been a serious problem in the past and we strongly encourage BLM to make a more decisive commitment in this Plan to effectively deal with this issue. Our Oepartment has in the past, and will in the future, be willing to cooperate with BLM to help resolve this issue where appropriate.

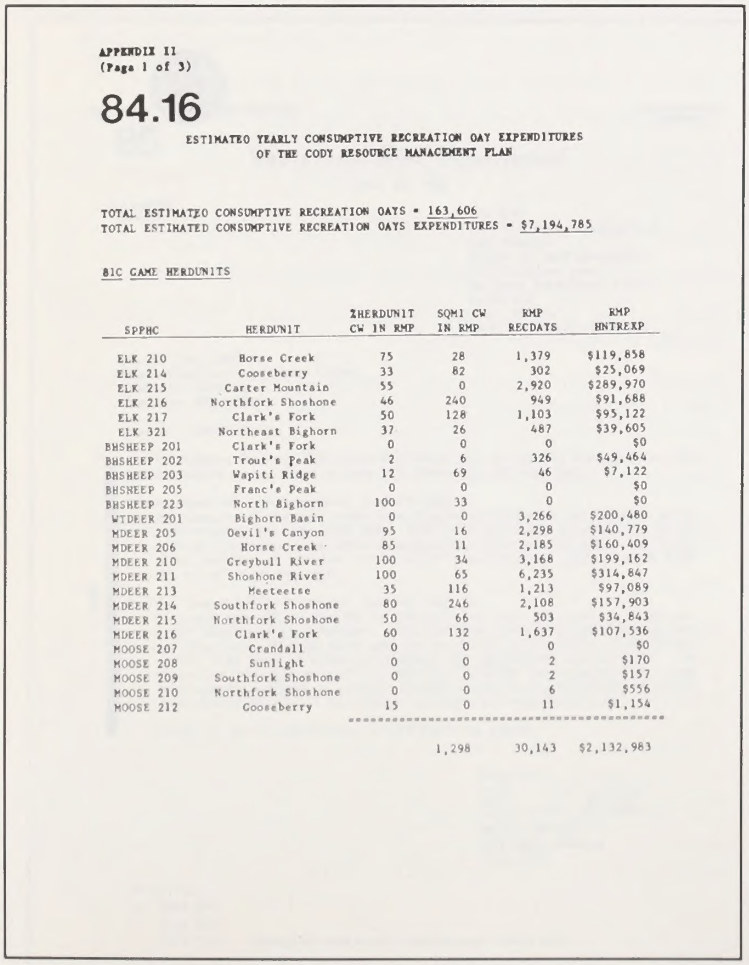
44 Alternative C and O call for significantly increased management responsibilities from present levels. This document provides no indication that BLM will have adequate resources to implement and monitor the proposed actions. This capability is very important if the Plan is to be effective. Some form of implementation schedule, noting available resources and timing, should be included in the final Plan.

Thank you for the opportunity to comment.

Sincerely,

Bill Morris
BILL MORRIS
OIRECTOR

BM:SCT:as
Attachments
cc: Came Div.
Fish Div.
HATS Div.



APPENDIX II
(Page 1 of 3)

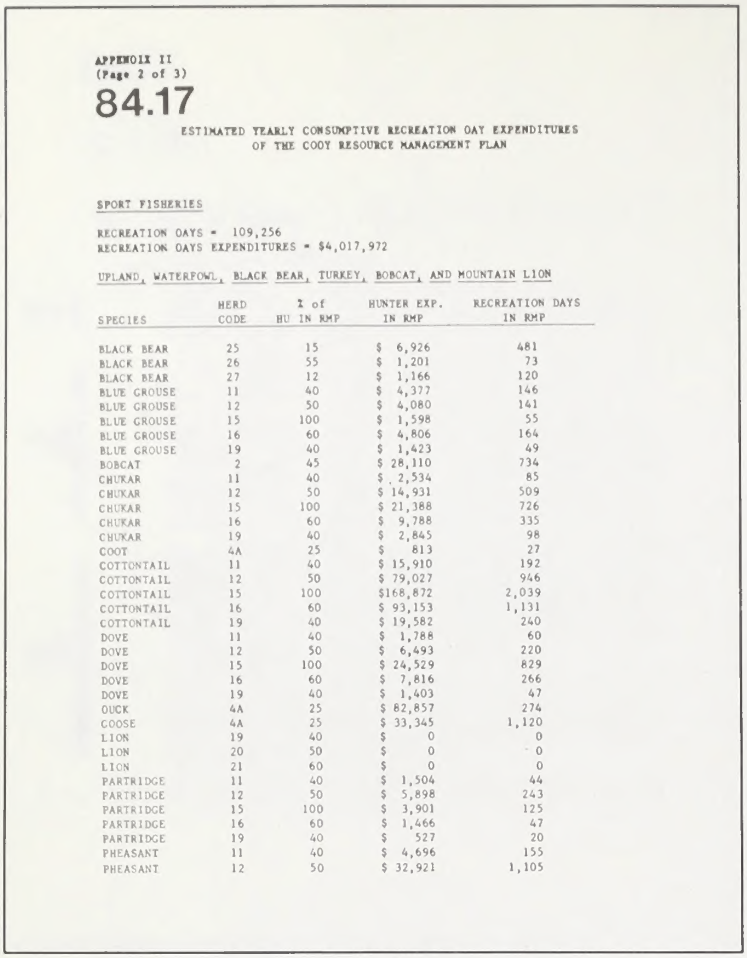
84.16

ESTIMATEO YEARLY CONSUMPTIVE RECREATION OAY EXPENDITURES
OF THE CODY RESOURCE MANAGEMENT PLAN

TOTAL ESTIMATEO CONSUMPTIVE RECREATION OAYS = 163,606
TOTAL ESTIMATED CONSUMPTIVE RECREATION OAYS EXPENDITURES = $7,194,785

BIC GAME HERDUNITS

SPPHC	HERDUNIT	%HERDUNIT CW IN RMP	SQMI CW IN RMP	RMP RECDAYS	RMP HNTREXP
ELK 210	Horse Creek	75	28	1,379	$119,858
ELK 214	Cooseberry	33	82	302	$25,069
ELK 215	Carter Mountain	55	0	2,920	$289,970
ELK 216	Northfork Shoshone	46	240	949	$91,688
ELK 217	Clark's Fork	50	128	1,103	$95,122
ELK 321	Northeast Bighorn	37	26	487	$39,605
BHSHEEP 201	Clark's Fork	0	0	0	$0
BHSHEEP 202	Trout's Peak	2	6	326	$49,464
BHSHEEP 203	Wapiti Ridge	12	69	46	$7,122
BHSNEEP 205	Franc's Peak	0	0	0	$0
BHSHEEP 223	North Bighorn	100	33	0	$0
WTDEER 201	Bighorn Basin	0	0	3,266	$200,480
MDEER 205	Oevil's Canyon	95	16	2,298	$140,779
MDEER 206	Horse Creek	85	11	2,185	$160,409
MDEER 210	Greybull River	100	34	3,168	$199,162
MDEER 211	Shoshone River	100	65	6,235	$314,847
MDEER 213	Meeteetse	35	116	1,213	$97,089
MDEER 214	Southfork Shoshone	80	246	2,108	$157,903
MDEER 215	Northfork Shoshone	50	66	503	$34,843
MDEER 216	Clark's Fork	60	132	1,637	$107,536
MOOSE 207	Crandall	0	0	0	$0
MOOSE 208	Sunlight	0	0	2	$170
MOOSE 209	Southfork Shoshone	0	0	2	$157
MOOSE 210	Northfork Shoshone	0	0	6	$556
MOOSE 212	Gooseberry	15	0	11	$1,154
			1,298	30,143	$2,132,983



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84.17

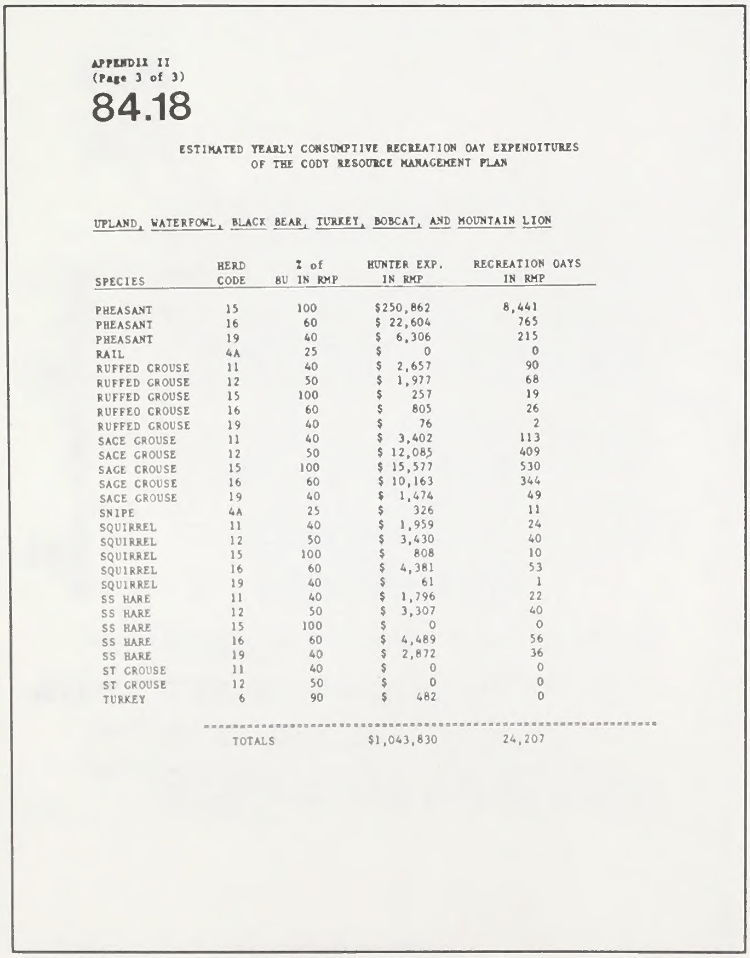
ESTIMATED YEARLY CONSUMPTIVE RECREATION DAY EXPENDITURES OF THE CODY RESOURCE MANAGEMENT PLAN

SPORT FISHERIES

RECREATION DAYS = 109,256
RECREATION DAYS EXPENDITURES = $4,017,972

UPLAND, WATERFOWL, BLACK BEAR, TURKEY, BOBCAT, AND MOUNTAIN LION

SPECIES	HERD CODE	% of HU IN RMP	HUNTER EXP. IN RMP	RECREATION DAYS IN RMP
BLACK BEAR	25	15	$ 6,926	481
BLACK BEAR	26	55	$ 1,201	73
BLACK BEAR	27	12	$ 1,166	120
BLUE GROUSE	11	40	$ 4,377	146
BLUE GROUSE	12	50	$ 4,080	141
BLUE GROUSE	15	100	$ 1,598	55
BLUE GROUSE	16	60	$ 4,806	164
BLUE GROUSE	19	40	$ 1,423	49
BOBCAT	2	45	$ 28,110	734
CHUKAR	11	40	$ 2,534	85
CHUKAR	12	50	$ 14,931	509
CHUKAR	15	100	$ 21,388	726
CHUKAR	16	60	$ 9,788	335
CHUKAR	19	40	$ 2,845	98
COOT	4A	25	$ 813	27
COTTONTAIL	11	40	$ 15,910	192
COTTONTAIL	12	50	$ 79,027	946
COTTONTAIL	15	100	$168,872	2,039
COTTONTAIL	16	60	$ 93,153	1,131
COTTONTAIL	19	40	$ 19,582	240
DOVE	11	40	$ 1,788	60
DOVE	12	50	$ 6,493	220
DOVE	15	100	$ 24,529	829
DOVE	16	60	$ 7,816	266
DOVE	19	40	$ 1,403	47
DUCK	4A	25	$ 82,857	274
GOOSE	4A	25	$ 33,345	1,120
LION	19	40	$ 0	0
LION	20	50	$ 0	0
LION	21	60	$ 0	0
PARTRIDGE	11	40	$ 1,504	44
PARTRIDGE	12	50	$ 5,898	243
PARTRIDGE	15	100	$ 3,901	125
PARTRIDGE	16	60	$ 1,466	47
PARTRIDGE	19	40	$ 527	20
PHEASANT	11	40	$ 4,696	155
PHEASANT	12	50	$ 32,921	1,105



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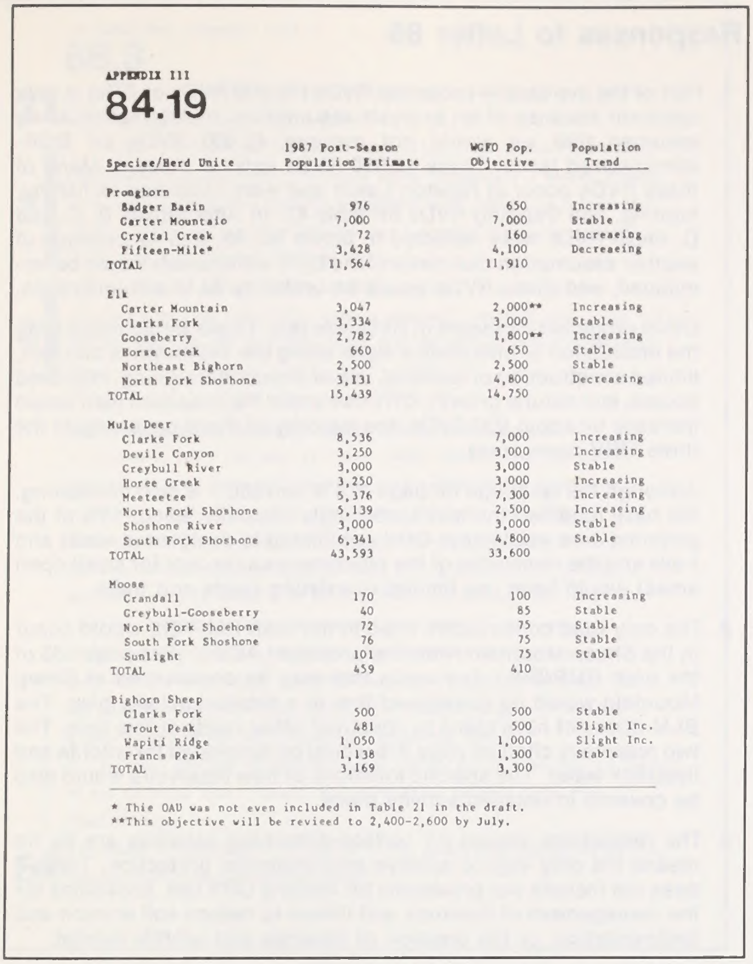
84.18

ESTIMATED YEARLY CONSUMPTIVE RECREATION DAY EXPENDITURES OF THE CODY RESOURCE MANAGEMENT PLAN

UPLAND, WATERFOWL, BLACK BEAR, TURKEY, BOBCAT, AND MOUNTAIN LION

SPECIES	HERD CODE	% of HU IN RMP	HUNTER EXP. IN RMP	RECREATION DAYS IN RMP
PHEASANT	15	100	$250,862	8,441
PHEASANT	16	60	$ 22,604	765
PHEASANT	19	40	$ 6,306	215
RAIL	4A	25	$ 0	0
RUFFED GROUSE	11	40	$ 2,657	90
RUFFED GROUSE	12	50	$ 1,977	68
RUFFED GROUSE	15	100	$ 257	19
RUFFED GROUSE	16	60	$ 805	26
RUFFED GROUSE	19	40	$ 76	2
SAGE GROUSE	11	40	$ 3,402	113
SAGE GROUSE	12	50	$ 12,085	409
SAGE GROUSE	15	100	$ 15,577	530
SAGE GROUSE	16	60	$ 10,163	344
SAGE GROUSE	19	40	$ 1,474	49
SNIPE	4A	25	$ 326	11
SQUIRREL	11	40	$ 1,959	24
SQUIRREL	12	50	$ 3,430	40
SQUIRREL	15	100	$ 808	10
SQUIRREL	16	60	$ 4,381	53
SQUIRREL	19	40	$ 61	1
SS HARE	11	40	$ 1,796	22
SS HARE	12	50	$ 3,307	40
SS HARE	15	100	$ 0	0
SS HARE	16	60	$ 4,489	56
SS HARE	19	40	$ 2,872	36
ST GROUSE	11	40	$ 0	0
ST GROUSE	12	50	$ 0	0
TURKEY	6	90	$ 482	0
	TOTALS		$1,043,830	24,207

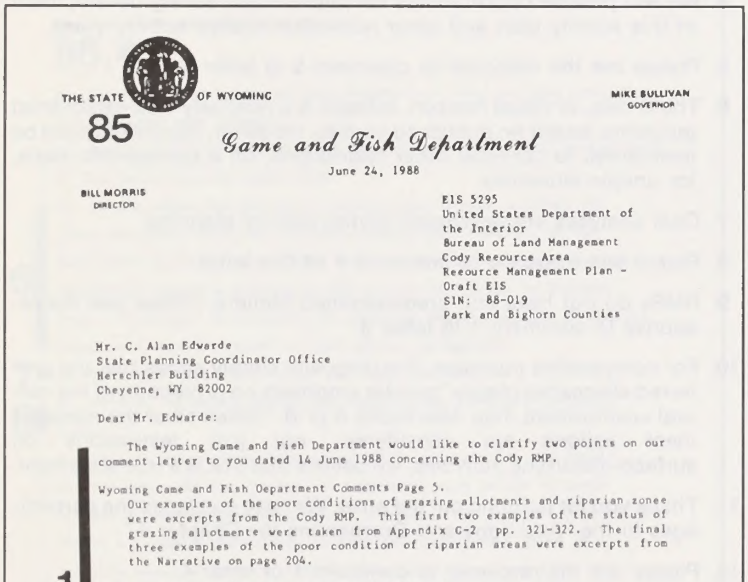


APPENDIX III

84.19

Species/Herd Units	1987 Post-Season Population Estimate	WGFO Pop. Objective	Population Trend
Pronghorn			
Badger Basin	976	650	Increasing
Carter Mountain	7,000	7,000	Stable
Crystal Creek	72	160	Increasing
Fifteen-Mile*	3,428	4,100	Decreasing
TOTAL	11,564	11,910	
Elk			
Carter Mountain	3,047	2,000**	Increasing
Clarks Fork	3,334	3,000	Stable
Gooseberry	2,782	1,800**	Increasing
Horse Creek	660	650	Stable
Northeast Bighorn	2,500	2,500	Stable
North Fork Shoshone	3,131	4,800	Decreasing
TOTAL	15,439	14,750	
Mule Deer			
Clarks Fork	8,536	7,000	Increasing
Devils Canyon	3,250	3,000	Increasing
Greybull River	3,000	3,000	Stable
Horse Creek	3,250	3,000	Increasing
Meeteetse	5,376	7,300	Increasing
North Fork Shoshone	5,139	2,500	Increasing
Shoshone River	3,000	3,000	Stable
South Fork Shoshone	6,341	4,800	Stable
TOTAL	43,593	33,600	
Moose			
Crandall	170	100	Increasing
Greybull-Gooseberry	40	85	Stable
North Fork Shoshone	72	75	Stable
South Fork Shoshone	76	75	Stable
Sunlight	101	75	Stable
TOTAL	459	410	
Bighorn Sheep			
Clarks Fork	500	500	Stable
Trout Peak	481	500	Slight Inc.
Wapiti Ridge	1,050	1,000	Slight Inc.
Francs Peak	1,138	1,300	Stable
TOTAL	3,169	3,300	

* This OAU was not even included in Table 21 in the draft.
**This objective will be revised to 2,400-2,600 by July.



THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

85

Game and Fish Department

June 24, 1988

BILL MORRIS
DIRECTOR

EIS 5295
United States Department of
the Interior
Bureau of Land Management
Cody Resource Area
Resource Management Plan -
Draft EIS
SIN: 88-019
Park and Bighorn Counties

Mr. C. Alan Edwards
State Planning Coordinator Office
Herschler Building
Cheyenne, WY 82002

Dear Mr. Edwards:

The Wyoming Game and Fish Department would like to clarify two points on our comment letter to you dated 14 June 1988 concerning the Cody RMP.

Wyoming Game and Fish Department Comments Page 5.
Our examples of the poor conditions of grazing allotments and riparian zones were excerpts from the Cody RMP. This first two examples of the status of grazing allotments were taken from Appendix G-2 pp. 321-322. The final three examples of the poor condition of riparian areas were excerpts from the Narrative on page 204.

1 Wyoming Game and Fish Department Comments Page 10.
We quote page 204 of the RMP on the value of livestock watering sites and small reservoirs to waterfowl. Benefits from these type developments are specific to the Bighorn Basin and are the result of the BLM's consideration of the dual uses of water developments for agriculture and wildlife. We appreciate the concern of the BLM for wildlife as evidenced in these developments and hope to continue to work cooperatively with them on future developments beneficial to wildlife and improved range conditions.

Thank you for the opportunity to clarify these points.

Sincerely,

Francis Petera

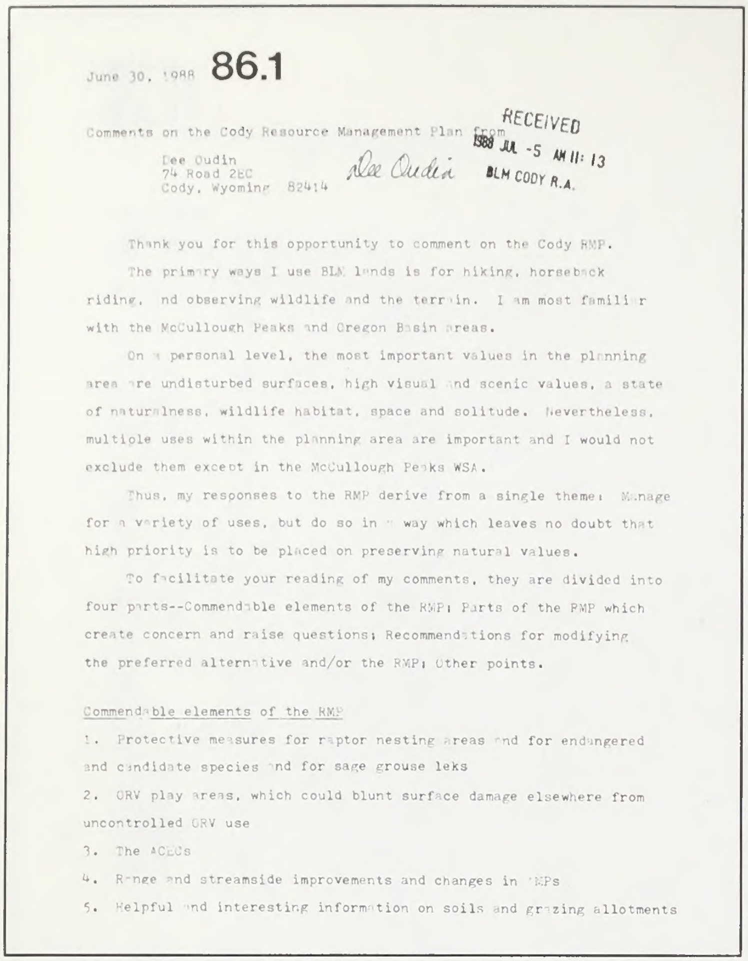
FRANCIS PETERA
ASSISTANT DIRECTOR
OPERATIONS

FP:SCT:ae
cc: Game Div.
Fish Div.
HATS Div.

Headquarters: 5400 Bishop Boulevard, Cheyenne, Wyoming 82002

Responses to Letter 85

1. Thank you for your comments.



June 30, 1988 **86.1**

Comments on the Cody Resource Management Plan from

Dee Oudin
74 Road 2EC
Cody, Wyoming 82414

Dee Oudin

RECEIVED
1988 JUL -5 AM 11: 13
BLM CODY R.A.

Thank you for this opportunity to comment on the Cody RMP.

The primary ways I use BLM lands is for hiking, horseback riding, and observing wildlife and the terrain. I am most familiar with the McCullough Peaks and Oregon Basin areas.

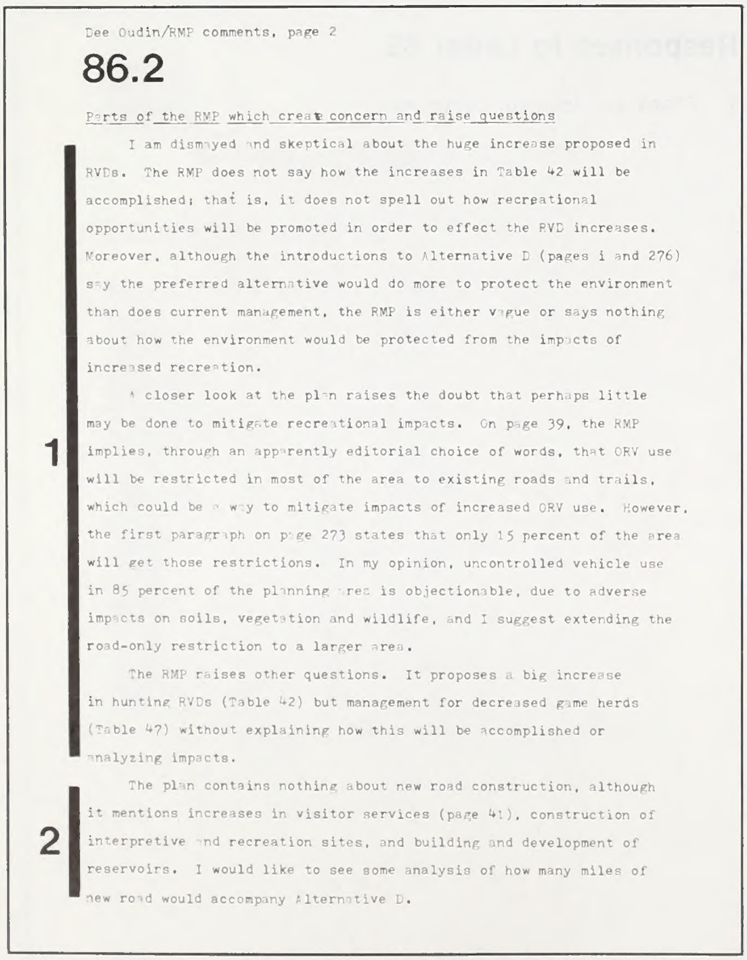
On a personal level, the most important values in the planning area are undisturbed surfaces, high visual and scenic values, a state of naturalness, wildlife habitat, space and solitude. Nevertheless, multiple uses within the planning area are important and I would not exclude them except in the McCullough Peaks WSA.

Thus, my responses to the RMP derive from a single theme: Manage for a variety of uses, but do so in a way which leaves no doubt that high priority is to be placed on preserving natural values.

To facilitate your reading of my comments, they are divided into four parts--Commendable elements of the RMP; Parts of the RMP which create concern and raise questions; Recommendations for modifying the preferred alternative and/or the RMP; Other points.

Commendable elements of the RMP

1. Protective measures for raptor nesting areas and for endangered and candidate species and for sage grouse leks
2. ORV play areas, which could blunt surface damage elsewhere from uncontrolled ORV use
3. The ACECs
4. Range and streamside improvements and changes in AMPs
5. Helpful and interesting information on soils and grazing allotments



Dee Oudin/RMP comments, page 2

86.2

Parts of the RMP which create concern and raise questions

1 I am dismayed and skeptical about the huge increase proposed in RVDs. The RMP does not say how the increases in Table 42 will be accomplished; that is, it does not spell out how recreational opportunities will be promoted in order to effect the RVD increases. Moreover, although the introductions to Alternative D (pages i and 276) say the preferred alternative would do more to protect the environment than does current management, the RMP is either vague or says nothing about how the environment would be protected from the impacts of increased recreation.

A closer look at the plan raises the doubt that perhaps little may be done to mitigate recreational impacts. On page 39, the RMP implies, through an apparently editorial choice of words, that ORV use will be restricted in most of the area to existing roads and trails, which could be a way to mitigate impacts of increased ORV use. However, the first paragraph on page 273 states that only 15 percent of the area will get those restrictions. In my opinion, uncontrolled vehicle use in 85 percent of the planning area is objectionable, due to adverse impacts on soils, vegetation and wildlife, and I suggest extending the road-only restriction to a larger area.

The RMP raises other questions. It proposes a big increase in hunting RVDs (Table 42) but management for decreased game herds (Table 47) without explaining how this will be accomplished or analyzing impacts.

2 The plan contains nothing about new road construction, although it mentions increases in visitor services (page 41), construction of interpretive and recreation sites, and building and development of reservoirs. I would like to see some analysis of how many miles of new road would accompany Alternative D.

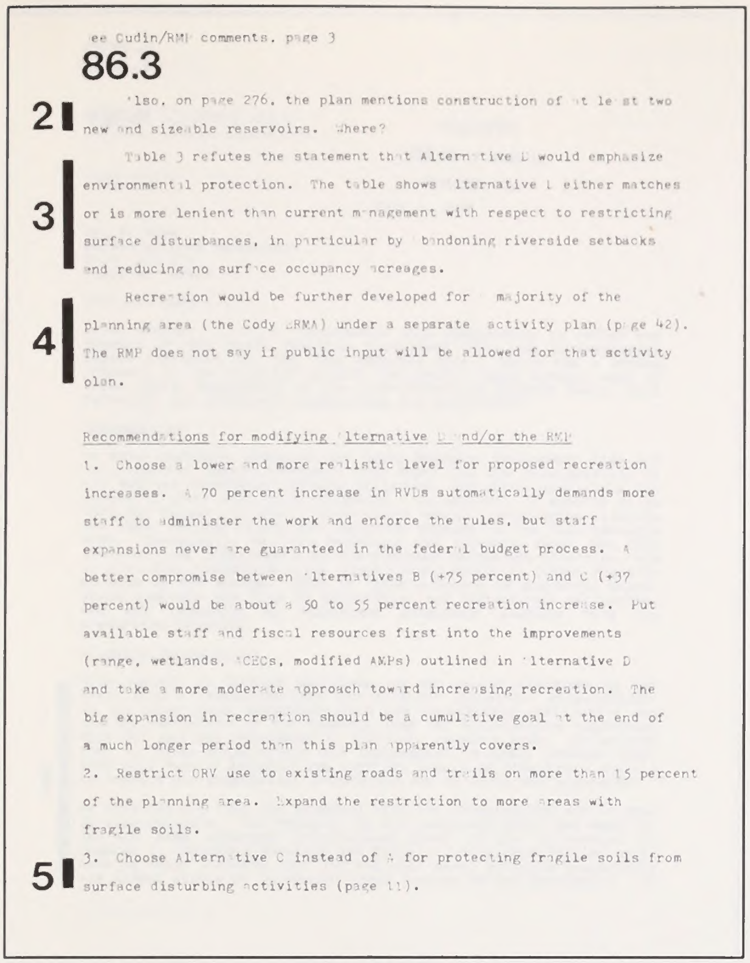
Responses to Letter 86

1. Part of the increase in projected RVDs (42,000 RVDs or 27%) is only apparent because of an analysis assumption. In Alternative A, we assumed that we would not manage 42,000 RVDs on BOR-administered lands. These 42,000 RVDs exist at present. Many of these RVDs occur at Newton Lakes and were classified as fishing, hunting, and trapping RVDs on table 42. In Alternatives B, C, and D, these RVDs were reflected in tables 30, 36, and 42 because of another assumption that many of the BOR withdrawals would be terminated, and these RVDs would be under by BLM administration.

   Other projected increases in RVDs are real. These would result from the installation of interpretive signs along the Yellowstone corridor, limited construction of facilities, use of directional signing, improved access, and natural growth. ORV use under the proposed plan would increase by about 900 RVDs, the majority of these occurring in the three ORV open areas.

   Although the language on page 273 is correct, it is also misleading. We have modified the text accordingly. Actually, about 15% of the planning area would have ORV use limited to designated roads and trails and the remainder of the planning area (except for small open areas) would have use limited to existing roads and trails.

2. The only road construction cited in the draft RMP/EIS would occur in the Sheep Mountain Anticline proposed ACEC. (See page 133 of the draft RMP/EIS.) Any roads that may be constructed at Sheep Mountain would be considered first in a detailed activity plan. The BLM does not have plans to construct other roads at this time. The two reservoirs cited on page 276 would be developed for wildlife and livestock water. The specific locations of new reservoirs would also be covered in detailed activity plans.
3. The restrictions placed on surface-disturbing activities are by no means the only way to achieve environmental protection. Table 3 does not include our provisions for limiting ORV use, provisions for the management of livestock and timber to reduce soil erosion and sedimentation, or the creation of fisheries and wildlife habitat.
4. We will provide opportunities for public input during development of this activity plan and other recreation-related activity plans.
5. Please see the response to comment 5 of letter 3.
6. The ¾ mile, or visual horizon, setback is a relatively well-established guideline, based on published studies. However, flexibility would be maintained to consider other restrictions, on a site-specific basis, for unique situations.
7. Cost analyses are developed during activity planning.
8. Please see response to comment 4 of this letter.
9. RMPs do not have any predetermined lifetime. Please see the response to comment 1 to letter 3.
10. For comparative purposes, the language simply states that the preferred alternative places "greater emphasis on protection of the natural environment than Alternative A or B." When all of the management actions are considered, not just restrictions on surface-disturbing activities, we believe that this is a true statement.
11. Thank you for pointing out the error. We have corrected the percentages in the "Additions and Corrections for Chapter 4."
12. Please see the response to comment 1 of letter 4.
13. It is misleading to compare ORV closed areas to semiprimitive nonmotorized opportunities. If a roadless area were closed to ORV use, it would, of course, remain nonmotorized. However, under existing management (Alternative A) all of the planning area is open to ORV use but there still exist many areas of semiprimitive nonmotorized opportunities. These areas are remote, or have terrain too steep or too rough to allow roads. Under the proposed plan, almost all of the semiprimitive nonmotorized opportunities would occur in areas with ORV use limited to designated roads and trails. This limitation would allow us to maintain these areas in a nonmotorized condition, just as easily as a closed designation would.



Dee Cudin/RMP comments, page 3

86.3

2 Also, on page 276, the plan mentions construction of at least two new and sizeable reservoirs. Where?

3 Table 3 refutes the statement that Alternative D would emphasize environmental protection. The table shows Alternative D either matches or is more lenient than current management with respect to restricting surface disturbances, in particular by abandoning riverside setbacks and reducing no surface occupancy acreages.

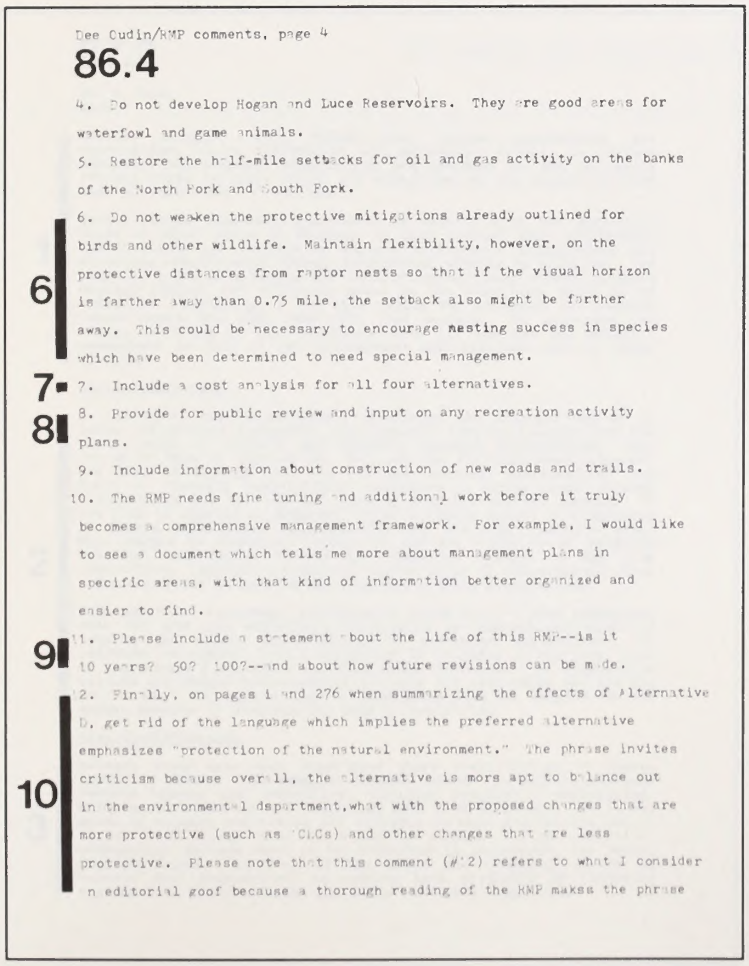
4 Recreation would be further developed for a majority of the planning area (the Cody SRMA) under a separate activity plan (page 42). The RMP does not say if public input will be allowed for that activity plan.

Recommendations for modifying Alternative D and/or the RMP

1. Choose a lower and more realistic level for proposed recreation increases. A 70 percent increase in RVDs automatically demands more staff to administer the work and enforce the rules, but staff expansions never are guaranteed in the federal budget process. A better compromise between Alternatives B (+75 percent) and C (+37 percent) would be about a 50 to 55 percent recreation increase. Put available staff and fiscal resources first into the improvements (range, wetlands, ACECs, modified AMPs) outlined in Alternative D and take a more moderate approach toward increasing recreation. The big expansion in recreation should be a cumulative goal at the end of a much longer period than this plan apparently covers.

2. Restrict ORV use to existing roads and trails on more than 15 percent of the planning area. Expand the restriction to more areas with fragile soils.

5 3. Choose Alternative C instead of A for protecting fragile soils from surface disturbing activities (page 11).



Dee Cudin/RMP comments, page 4

86.4

4. Do not develop Hogan and Luce Reservoirs. They are good areas for waterfowl and game animals.

5. Restore the half-mile setbacks for oil and gas activity on the banks of the North Fork and South Fork.

6 6. Do not weaken the protective mitigations already outlined for birds and other wildlife. Maintain flexibility, however, on the protective distances from raptor nests so that if the visual horizon is farther away than 0.75 mile, the setback also might be farther away. This could be necessary to encourage nesting success in species which have been determined to need special management.

7 7. Include a cost analysis for all four alternatives.

8 8. Provide for public review and input on any recreation activity plans.

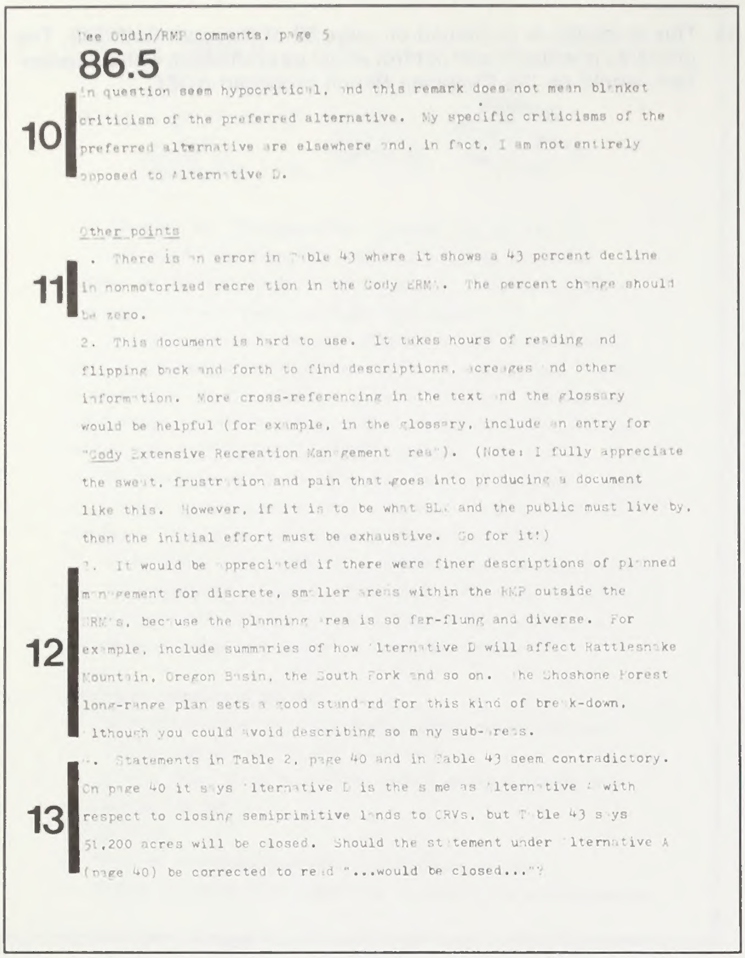
9. Include information about construction of new roads and trails.

10. The RMP needs fine tuning and additional work before it truly becomes a comprehensive management framework. For example, I would like to see a document which tells me more about management plans in specific areas, with that kind of information better organized and easier to find.

9 11. Please include a statement about the life of this RMP--is it 10 years? 50? 100?--and about how future revisions can be made.

10 12. Finally, on pages i and 276 when summarizing the effects of Alternative D, get rid of the languhge which implies the preferred alternative emphasizes "protection of the natural environment." The phrase invites criticism because overall, the alternative is mors apt to balance out in the environmental dspartment, what with the proposed changes that are more protective (such as ACECs) and other changes that are less protective. Please note that this comment (#12) refers to what I consider an editorial goof because a thorough reading of the RMP makss the phrase

14. This language is contained on page 50 of the draft RMP/EIS. The only area in which insect control would be prohibited, without exception, would be the Chapman Bench proposed ACEC.


Dee Oudin/RMP comments, page 5

86.5

10 in question seem hypocritical, and this remark does not mean blanket criticism of the preferred alternative. My specific criticisms of the preferred alternative are elsewhere and, in fact, I am not entirely opposed to Alternative D.

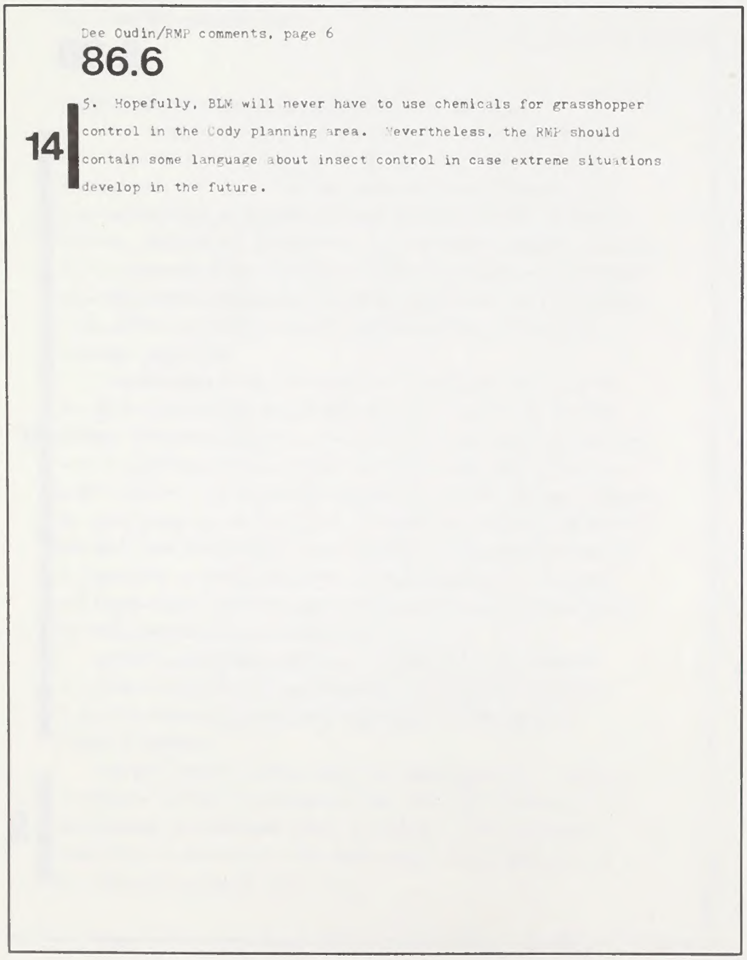
Other points

11 1. There is an error in Table 43 where it shows a 43 percent decline in nonmotorized recreation in the Cody ERMA. The percent change should be zero.

2. This document is hard to use. It takes hours of reading and flipping back and forth to find descriptions, acreages and other information. More cross-referencing in the text and the glossary would be helpful (for example, in the glossary, include an entry for "Cody Extensive Recreation Management Area"). (Note: I fully appreciate the sweat, frustration and pain that goes into producing a document like this. However, if it is to be what BLM and the public must live by, then the initial effort must be exhaustive. Go for it!)

12 3. It would be appreciated if there were finer descriptions of planned management for discrete, smaller areas within the RMP outside the ERMAs, because the planning area is so far-flung and diverse. For example, include summaries of how Alternative D will affect Rattlesnake Mountain, Oregon Basin, the South Fork and so on. The Shoshone Forest long-range plan sets a good standard for this kind of break-down, although you could avoid describing so many sub-areas.

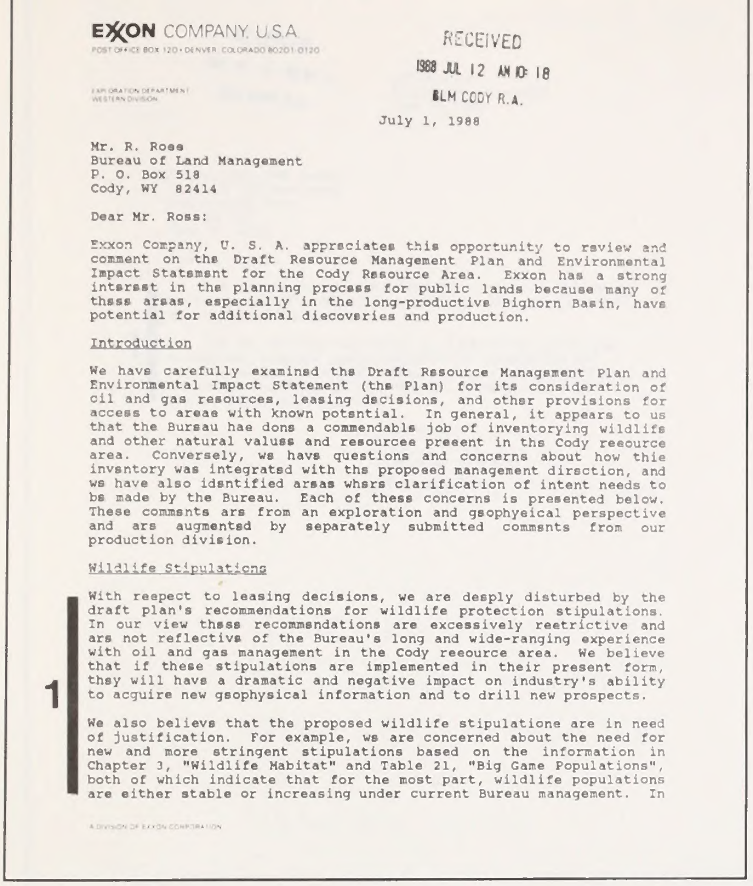
13 4. Statements in Table 2, page 40 and in Table 43 seem contradictory. On page 40 it says Alternative D is the same as Alternative A with respect to closing semiprimitive lands to ORVs, but Table 43 says 51,200 acres will be closed. Should the statement under Alternative A (page 40) be corrected to read "...would be closed..."?


Dee Oudin/RMP comments, page 6

86.6

14 5. Hopefully, BLM will never have to use chemicals for grasshopper control in the Cody planning area. Nevertheless, the RMP should contain some language about insect control in case extreme situations develop in the future.

87.1



EXXON COMPANY, U.S.A.
POST OFFICE BOX 120 • DENVER, COLORADO 80201-0120

EXPLORATION DEPARTMENT
WESTERN DIVISION

RECEIVED
1988 JUL 12 AM 10: 18
BLM CODY R.A.

July 1, 1988

Mr. R. Ross
Bureau of Land Management
P. O. Box 518
Cody, WY 82414

Dear Mr. Ross:

Exxon Company, U. S. A. appreciates this opportunity to review and comment on the Draft Resource Management Plan and Environmental Impact Statement for the Cody Resource Area. Exxon has a strong interest in the planning process for public lands because many of these areas, especially in the long-productive Bighorn Basin, have potential for additional discoveries and production.

Introduction

We have carefully examined the Draft Resource Management Plan and Environmental Impact Statement (the Plan) for its consideration of oil and gas resources, leasing decisions, and other provisions for access to areas with known potential. In general, it appears to us that the Bureau has done a commendable job of inventorying wildlife and other natural values and resources present in the Cody resource area. Conversely, we have questions and concerns about how this inventory was integrated with the proposed management direction, and we have also identified areas where clarification of intent needs to be made by the Bureau. Each of these concerns is presented below. These comments are from an exploration and geophysical perspective and are augmented by separately submitted comments from our production division.

Wildlife Stipulations

1 With respect to leasing decisions, we are deeply disturbed by the draft plan's recommendations for wildlife protection stipulations. In our view these recommendations are excessively restrictive and are not reflective of the Bureau's long and wide-ranging experience with oil and gas management in the Cody resource area. We believe that if these stipulations are implemented in their present form, they will have a dramatic and negative impact on industry's ability to acquire new geophysical information and to drill new prospects.

We also believe that the proposed wildlife stipulations are in need of justification. For example, we are concerned about the need for new and more stringent stipulations based on the information in Chapter 3, "Wildlife Habitat" and Table 21, "Big Game Populations", both of which indicate that for the most part, wildlife populations are either stable or increasing under current Bureau management. In

A DIVISION OF EXXON CORPORATION

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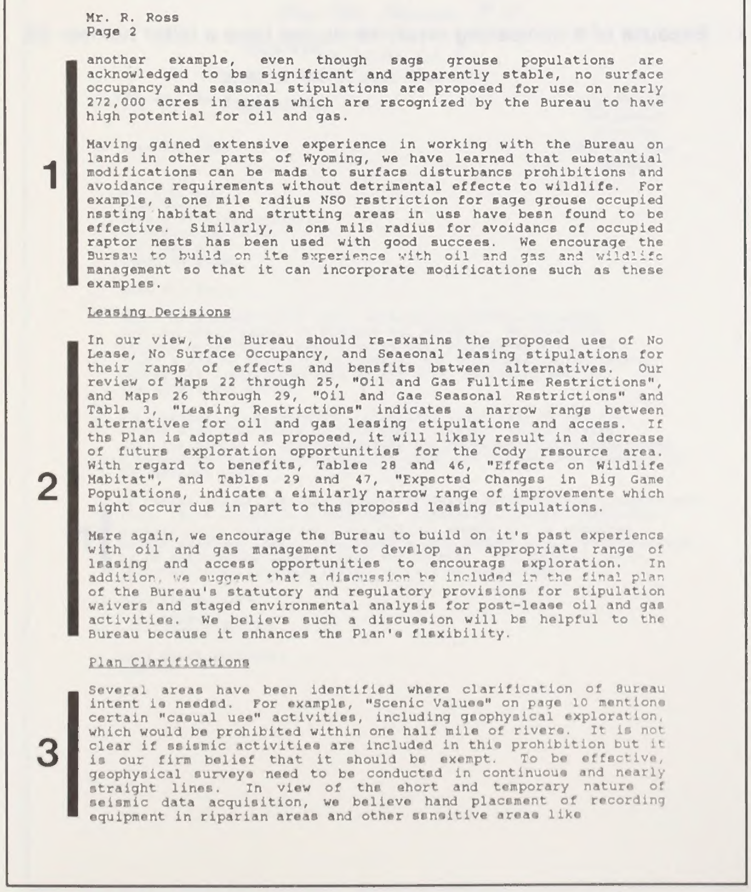


Mr. R. Ross
Page 2

1 another example, even though sage grouse populations are acknowledged to be significant and apparently stable, no surface occupancy and seasonal stipulations are proposed for use on nearly 272,000 acres in areas which are recognized by the Bureau to have high potential for oil and gas.

Having gained extensive experience in working with the Bureau on lands in other parts of Wyoming, we have learned that substantial modifications can be made to surface disturbance prohibitions and avoidance requirements without detrimental effects to wildlife. For example, a one mile radius NSO restriction for sage grouse occupied nesting habitat and strutting areas in use have been found to be effective. Similarly, a one mile radius for avoidance of occupied raptor nests has been used with good success. We encourage the Bureau to build on its experience with oil and gas and wildlife management so that it can incorporate modifications such as these examples.

Leasing Decisions

2 In our view, the Bureau should re-examine the proposed use of No Lease, No Surface Occupancy, and Seasonal leasing stipulations for their range of effects and benefits between alternatives. Our review of Maps 22 through 25, "Oil and Gas Fulltime Restrictions", and Maps 26 through 29, "Oil and Gas Seasonal Restrictions" and Table 3, "Leasing Restrictions" indicates a narrow range between alternatives for oil and gas leasing stipulations and access. If the Plan is adopted as proposed, it will likely result in a decrease of future exploration opportunities for the Cody resource area. With regard to benefits, Tables 28 and 46, "Effects on Wildlife Habitat", and Tables 29 and 47, "Expected Changes in Big Game Populations, indicate a similarly narrow range of improvements which might occur due in part to the proposed leasing stipulations.

Here again, we encourage the Bureau to build on it's past experience with oil and gas management to develop an appropriate range of leasing and access opportunities to encourage exploration. In addition, we suggest that a discussion be included in the final plan of the Bureau's statutory and regulatory provisions for stipulation waivers and staged environmental analysis for post-lease oil and gas activities. We believe such a discussion will be helpful to the Bureau because it enhances the Plan's flexibility.

Plan Clarifications

3 Several areas have been identified where clarification of Bureau intent is needed. For example, "Scenic Values" on page 10 mentions certain "casual use" activities, including geophysical exploration, which would be prohibited within one half mile of rivers. It is not clear if seismic activities are included in this prohibition but it is our firm belief that it should be exempt. To be effective, geophysical surveys need to be conducted in continuous and nearly straight lines. In view of the short and temporary nature of seismic data acquisition, we believe hand placement of recording equipment in riparian areas and other sensitive areas like

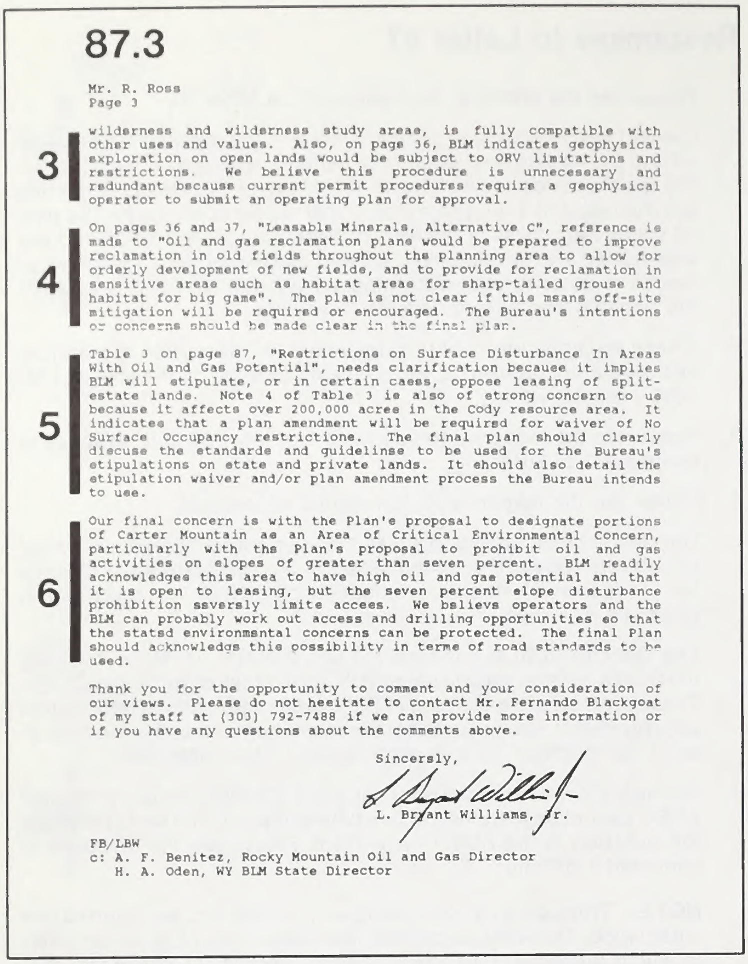
Responses to Letter 87

1. Please see the response to comment 7 of letter 56.
2. It would be misleading to compare directly, the relationship between oil and gas leasing restrictions and benefits or adverse effects to wildlife (as shown on tables 29 and 47). Many of the effects to wildlife are the result of a long-term trend that would continue for the next 10 years, regardless of the level of restriction placed on oil and gas exploration and development. Oil and gas exploration and development and other surface-disturbing activities pertain only to some of the benefits and adverse effects to wildlife.

   Please see appendix K of this document for discussion of statutory and regulatory provisions, including information on the analyses for post-lease activities.
3. Please see the response to comment 1 of letter 56 and response to comment 1 of letter 57.
4. Please see the response to comment 2 of letter 56.
5. The reference on table 3 to a plan amendment for stipulation waiver is incorrect. We have modified table 3 to be consistent with guidance for the waiver of standard mitigation guidelines, as described in appendix B.

   The Director of BLM has resolved two protests on RMPs involving the BLM's mineral leasing responsibility in areas of split estate lands. These protests are discussed in BLM Washington Office information bulletin 88-271. We believe that the resolution of these protests supports our position on split estate lands in this RMP/EIS.
6. Site-specific road standards for use in the Carter Mountain proposed ACEC cannot be identified at this time and would not be appropriate for inclusion in the RMP in any event. Please see the response to comment 1 of letter 22.

NOTE: Through an error in filing and numbering, we counted one letter twice. The letter numbered "88" was a copy of an earlier letter to which responses had already been prepared. The error was discovered too late to renumber all subsequent letters.



87.3

Mr. R. Ross
Page 3

3 wilderness and wilderness study areas, is fully compatible with other uses and values. Also, on page 36, BLM indicates geophysical exploration on open lands would be subject to ORV limitations and restrictions. We believe this procedure is unnecessary and redundant because current permit procedures require a geophysical operator to submit an operating plan for approval.

4 On pages 36 and 37, "Leasable Minerals, Alternative C", reference is made to "Oil and gas reclamation plans would be prepared to improve reclamation in old fields throughout the planning area to allow for orderly development of new fields, and to provide for reclamation in sensitive areas such as habitat areas for sharp-tailed grouse and habitat for big game". The plan is not clear if this means off-site mitigation will be required or encouraged. The Bureau's intentions or concerns should be made clear in the final plan.

5 Table 3 on page 87, "Restrictions on Surface Disturbance In Areas With Oil and Gas Potential", needs clarification because it implies BLM will stipulate, or in certain cases, oppose leasing of split-estate lands. Note 4 of Table 3 is also of strong concern to us because it affects over 200,000 acres in the Cody resource area. It indicates that a plan amendment will be required for waiver of No Surface Occupancy restrictions. The final plan should clearly discuss the standards and guidelines to be used for the Bureau's stipulations on state and private lands. It should also detail the stipulation waiver and/or plan amendment process the Bureau intends to use.

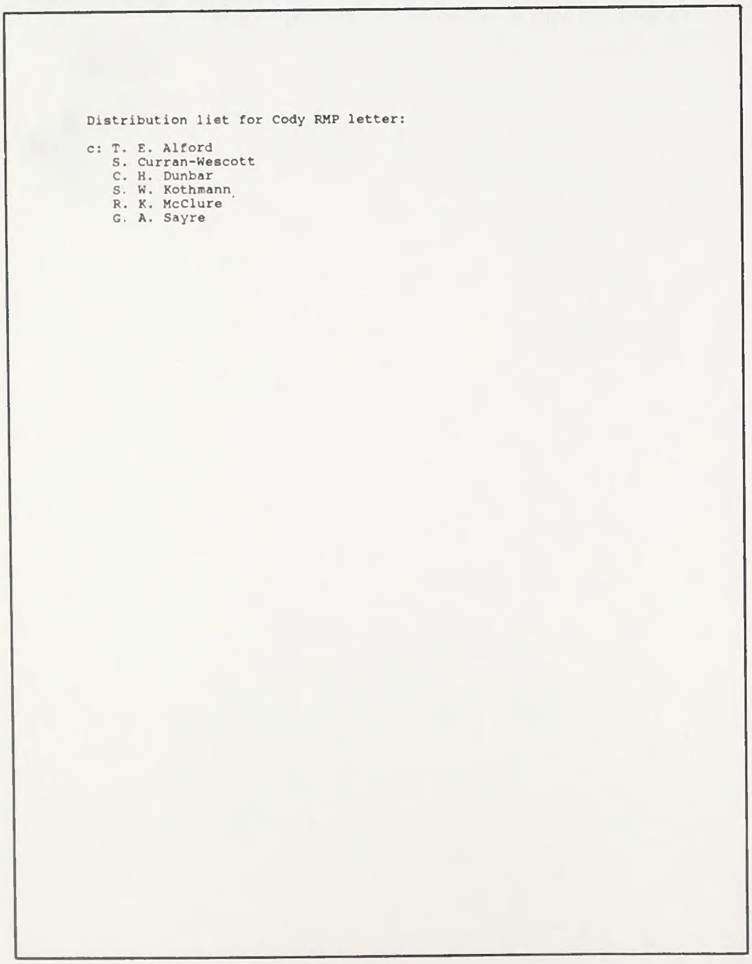
6 Our final concern is with the Plan's proposal to designate portions of Carter Mountain as an Area of Critical Environmental Concern, particularly with the Plan's proposal to prohibit oil and gas activities on slopes of greater than seven percent. BLM readily acknowledges this area to have high oil and gas potential and that it is open to leasing, but the seven percent slope disturbance prohibition severely limits access. We believe operators and the BLM can probably work out access and drilling opportunities so that the stated environmental concerns can be protected. The final Plan should acknowledge this possibility in terms of road standards to be used.

Thank you for the opportunity to comment and your consideration of our views. Please do not hesitate to contact Mr. Fernando Blackgoat of my staff at (303) 792-7488 if we can provide more information or if you have any questions about the comments above.

Sincerely,

L. Bryant Williams, Jr.

FB/LBW
c: A. F. Benitez, Rocky Mountain Oil and Gas Director
H. A. Oden, WY BLM State Director

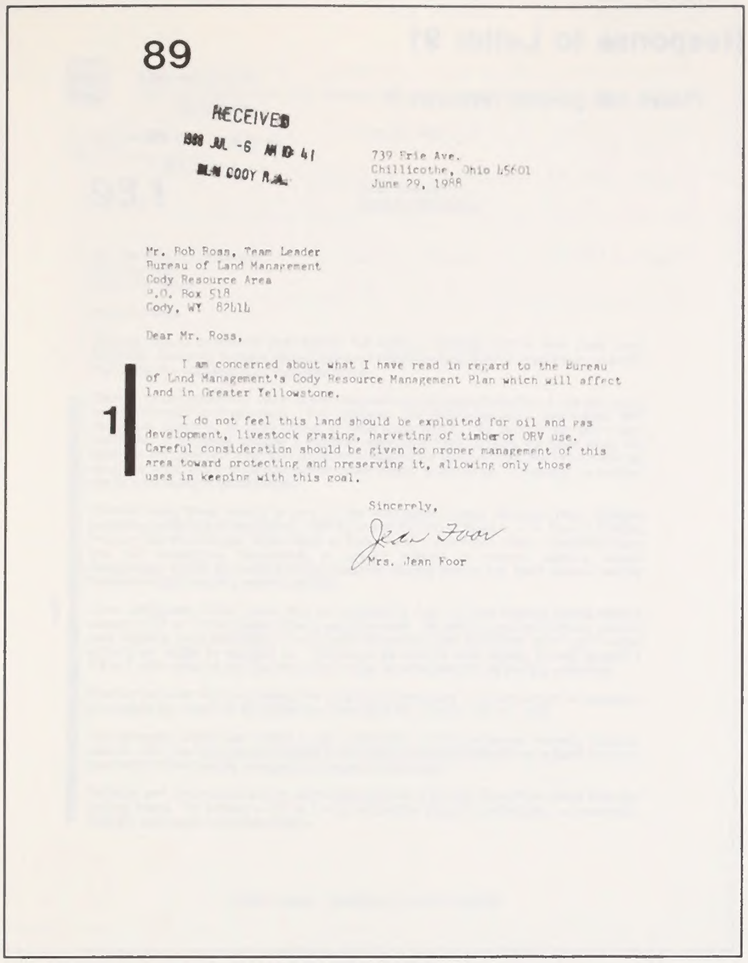


Distribution list for Cody RMP letter:

c: T. E. Alford
S. Curran-Wescott
C. H. Dunbar
S. W. Kothmann
R. K. McClure
G. A. Sayre

Response to Letter 88

1. Because of a numbering error, we do not have a letter number 88.



89

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1988 JUL -6 AM 10 41
BLM CODY R.A.

739 Erie Ave.
Chillicothe, Ohio 45601
June 29, 1988

Mr. Bob Ross, Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

Dear Mr. Ross,

1 I am concerned about what I have read in regard to the Bureau of Land Management's Cody Resource Management Plan which will affect land in Greater Yellowstone.

I do not feel this land should be exploited for oil and gas development, livestock grazing, harveting of timber or ORV use. Careful consideration should be given to proper management of this area toward protecting and preserving it, allowing only those uses in keeping with this goal.

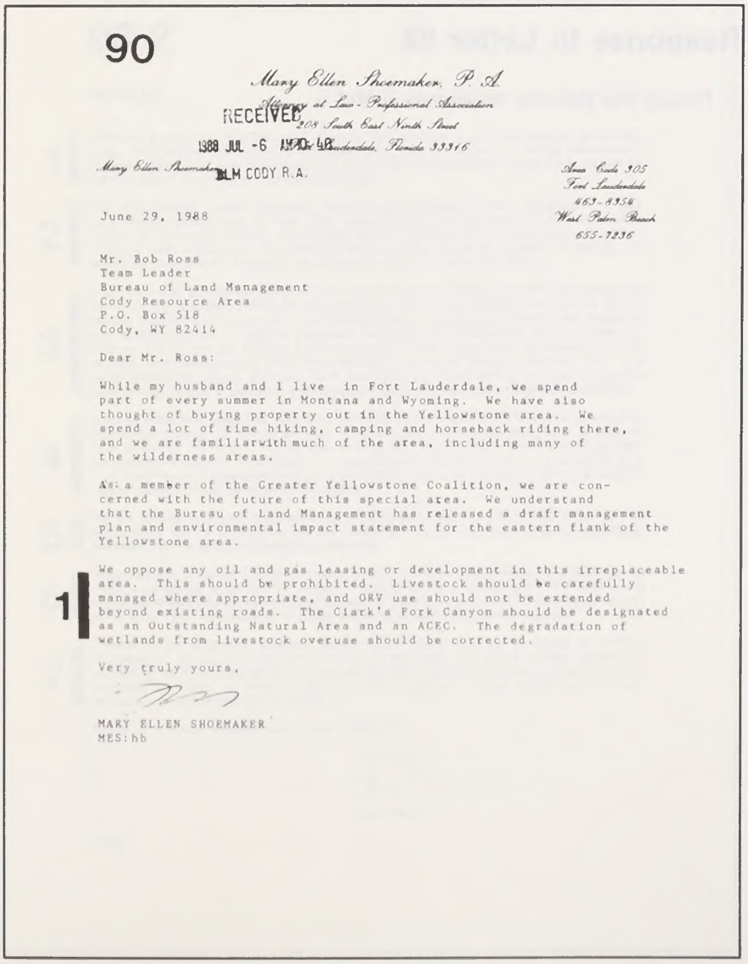
Sincerely,

Jean Foor

Mrs. Jean Foor

Response to Letter 89

1. Please see general response 5.



90

Mary Ellen Shoemaker, P. A.
Attorney at Law - Professional Association
208 South East Ninth Street
Fort Lauderdale, Florida 33316

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1988 JUL -6 AM 10 48
BLM CODY R.A.

Mary Ellen Shoemaker

Area Code 305
Fort Lauderdale
463-8354
West Palm Beach
655-7236

June 29, 1988

Mr. Bob Ross
Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

Dear Mr. Ross:

While my husband and I live in Fort Lauderdale, we spend part of every summer in Montana and Wyoming. We have also thought of buying property out in the Yellowstone area. We spend a lot of time hiking, camping and horseback riding there, and we are familiarwith much of the area, including many of the wilderness areas.

As a member of the Greater Yellowstone Coalition, we are concerned with the future of this special area. We understand that the Bureau of Land Management has released a draft management plan and environmental impact statement for the eastern flank of the Yellowstone area.

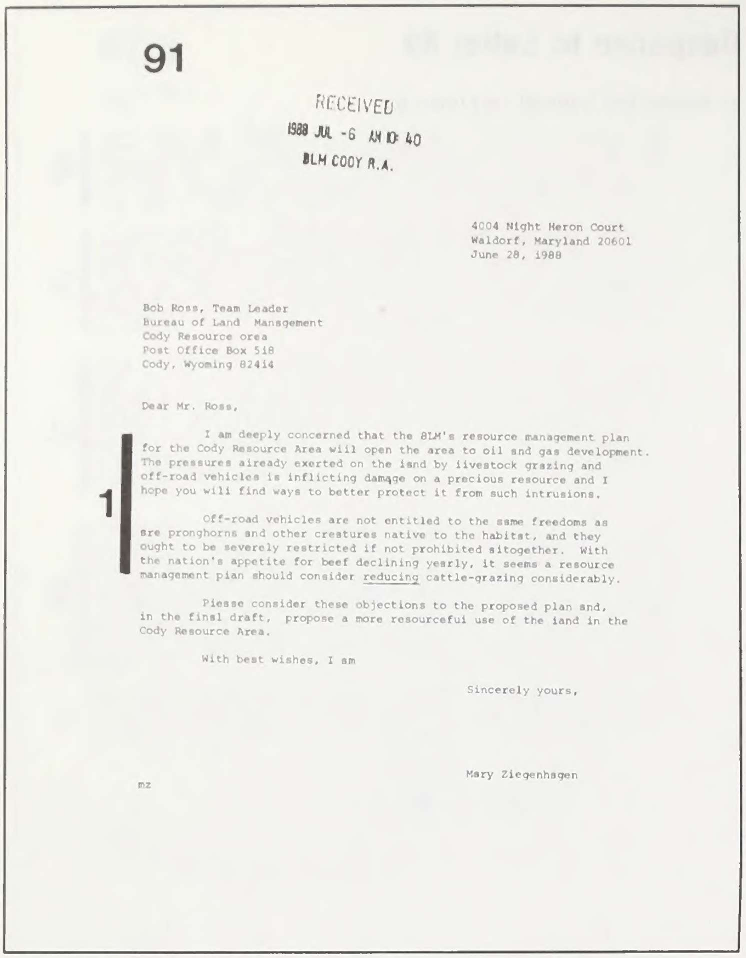
1 We oppose any oil and gas leasing or development in this irreplaceable area. This should be prohibited. Livestock should be carefully managed where appropriate, and ORV use should not be extended beyond existing roads. The Clark's Fork Canyon should be designated as an Outstanding Natural Area and an ACEC. The degradation of wetlands from livestock overuse should be corrected.

Very truly yours,

MARY ELLEN SHOEMAKER
MES:hb

Response to Letter 90

1. Please see general responses 3 and 5.



91

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1988 JUL -6 AM 10:40
BLM CODY R.A.

4004 Night Heron Court
Waldorf, Maryland 20601
June 28, 1988

Bob Ross, Team Leader
Bureau of Land Management
Cody Resource area
Post Office Box 518
Cody, Wyoming 82414

Dear Mr. Ross,

1 I am deeply concerned that the BLM's resource management plan for the Cody Resource Area will open the area to oil and gas development. The pressures already exerted on the land by livestock grazing and off-road vehicles is inflicting damage on a precious resource and I hope you will find ways to better protect it from such intrusions.

Off-road vehicles are not entitled to the same freedoms as are pronghorns and other creatures native to the habitat, and they ought to be severely restricted if not prohibited altogether. With the nation's appetite for beef declining yearly, it seems a resource management plan should consider reducing cattle-grazing considerably.

Please consider these objections to the proposed plan and, in the final draft, propose a more resourceful use of the land in the Cody Resource Area.

With best wishes, I am

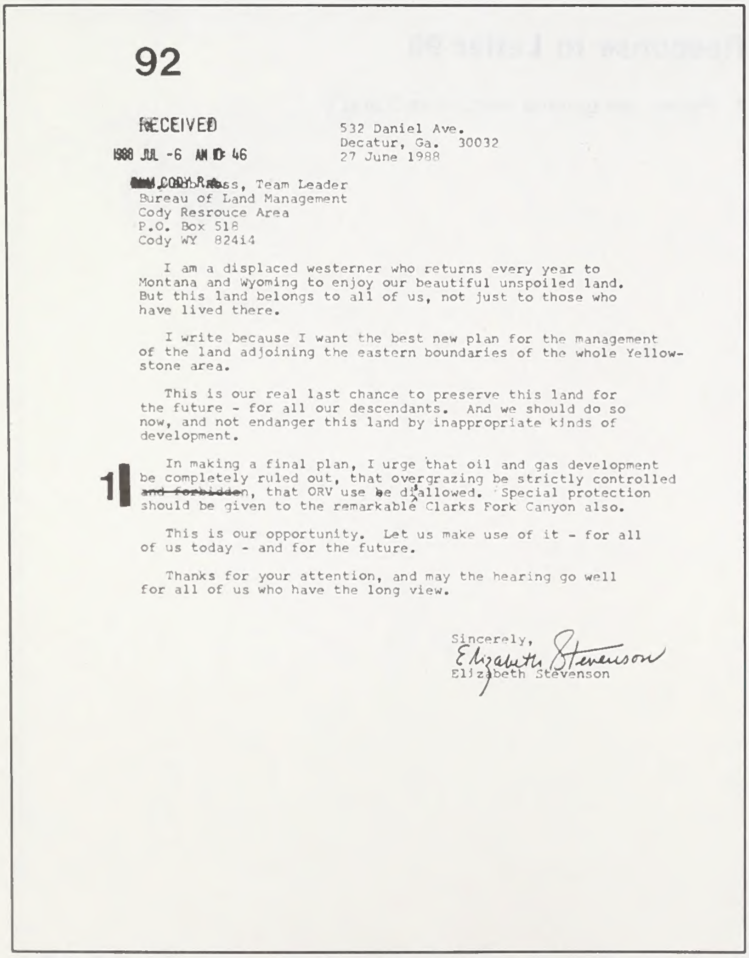
Sincerely yours,

Mary Ziegenhagen

mz

Response to Letter 91

1. Please see general response 5.



92

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1988 JUL -6 AM 10:46
BLM CODY R.A.

532 Daniel Ave.
Decatur, Ga. 30032
27 June 1988

Bob Ross, Team Leader
Bureau of Land Management
Cody Resrouce Area
P.O. Box 518
Cody WY 82414

I am a displaced westerner who returns every year to Montana and Wyoming to enjoy our beautiful unspoiled land. But this land belongs to all of us, not just to those who have lived there.

I write because I want the best new plan for the management of the land adjoining the eastern boundaries of the whole Yellowstone area.

This is our real last chance to preserve this land for the future - for all our descendants. And we should do so now, and not endanger this land by inappropriate kinds of development.

1 In making a final plan, I urge that oil and gas development be completely ruled out, that overgrazing be strictly controlled ~~and forbidden~~, that ORV use be disallowed. Special protection should be given to the remarkable Clarks Fork Canyon also.

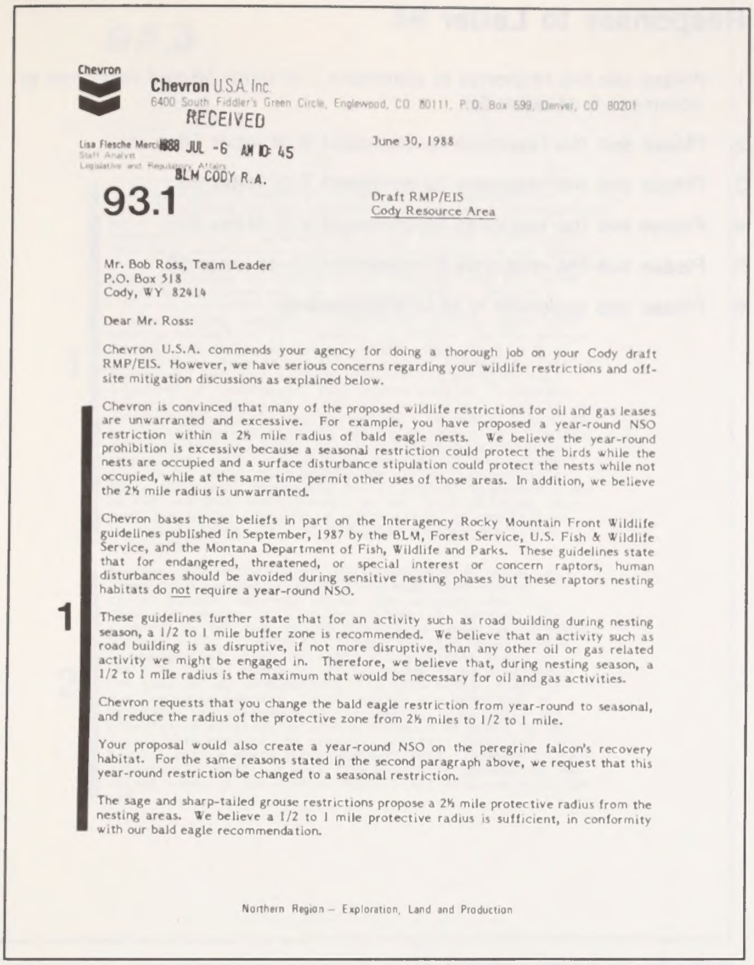
This is our opportunity. Let us make use of it - for all of us today - and for the future.

Thanks for your attention, and may the hearing go well for all of us who have the long view.

Sincerely,
Elizabeth Stevenson
Elizabeth Stevenson

Response to Letter 92

1. Please see general responses 3 and 5.



Chevron
Chevron U.S.A. Inc.
6400 South Fiddler's Green Circle, Englewood, CO 80111, P.O. Box 599, Denver, CO 80201

Lisa Flesche Merci
Staff Analyst
Legislative and Regulatory Affairs

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1988 JUL -6 AM 10: 45
BLM CODY R.A.

June 30, 1988

93.1

Draft RMP/EIS
Cody Resource Area

Mr. Bob Ross, Team Leader
P.O. Box 518
Cody, WY 82414

Dear Mr. Ross:

Chevron U.S.A. commends your agency for doing a thorough job on your Cody draft RMP/EIS. However, we have serious concerns regarding your wildlife restrictions and off-site mitigation discussions as explained below.

Chevron is convinced that many of the proposed wildlife restrictions for oil and gas leases are unwarranted and excessive. For example, you have proposed a year-round NSO restriction within a 2½ mile radius of bald eagle nests. We believe the year-round prohibition is excessive because a seasonal restriction could protect the birds while the nests are occupied and a surface disturbance stipulation could protect the nests while not occupied, while at the same time permit other uses of those areas. In addition, we believe the 2½ mile radius is unwarranted.

Chevron bases these beliefs in part on the Interagency Rocky Mountain Front Wildlife guidelines published in September, 1987 by the BLM, Forest Service, U.S. Fish & Wildlife Service, and the Montana Department of Fish, Wildlife and Parks. These guidelines state that for endangered, threatened, or special interest or concern raptors, human disturbances should be avoided during sensitive nesting phases but these raptors nesting habitats do not require a year-round NSO.

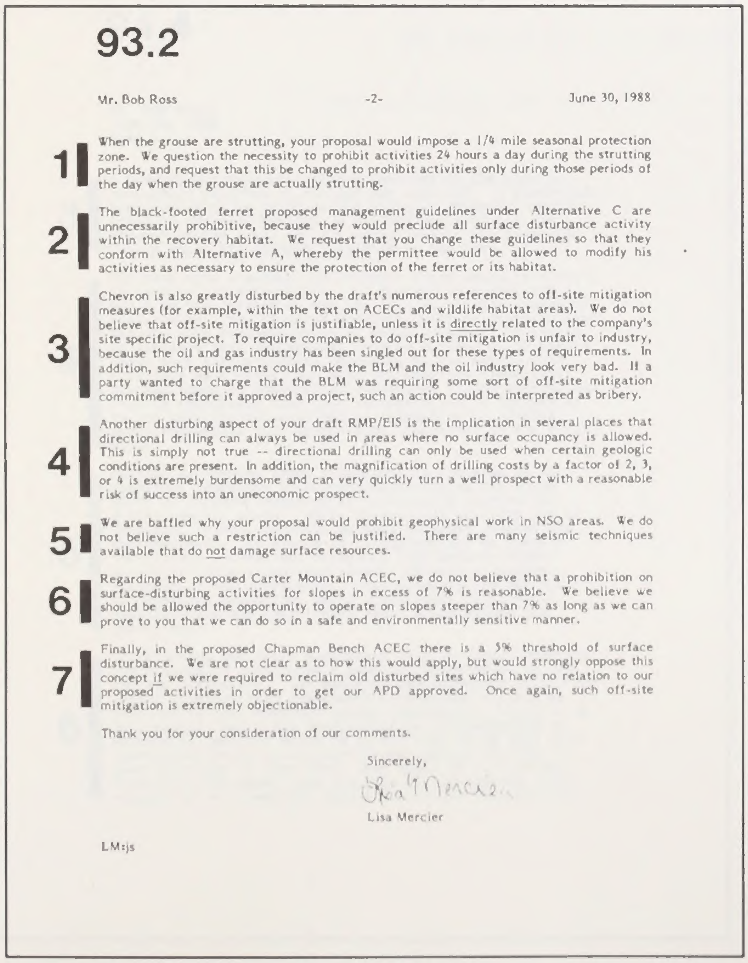
1 These guidelines further state that for an activity such as road building during nesting season, a 1/2 to 1 mile buffer zone is recommended. We believe that an activity such as road building is as disruptive, if not more disruptive, than any other oil or gas related activity we might be engaged in. Therefore, we believe that, during nesting season, a 1/2 to 1 mile radius is the maximum that would be necessary for oil and gas activities.

Chevron requests that you change the bald eagle restriction from year-round to seasonal, and reduce the radius of the protective zone from 2½ miles to 1/2 to 1 mile.

Your proposal would also create a year-round NSO on the peregrine falcon's recovery habitat. For the same reasons stated in the second paragraph above, we request that this year-round restriction be changed to a seasonal restriction.

The sage and sharp-tailed grouse restrictions propose a 2½ mile protective radius from the nesting areas. We believe a 1/2 to 1 mile protective radius is sufficient, in conformity with our bald eagle recommendation.

Northern Region — Exploration, Land and Production



93.2

Mr. Bob Ross -2- June 30, 1988

1 When the grouse are strutting, your proposal would impose a 1/4 mile seasonal protection zone. We question the necessity to prohibit activities 24 hours a day during the strutting periods, and request that this be changed to prohibit activities only during those periods of the day when the grouse are actually strutting.

2 The black-footed ferret proposed management guidelines under Alternative C are unnecessarily prohibitive, because they would preclude all surface disturbance activity within the recovery habitat. We request that you change these guidelines so that they conform with Alternative A, whereby the permittee would be allowed to modify his activities as necessary to ensure the protection of the ferret or its habitat.

3 Chevron is also greatly disturbed by the draft's numerous references to off-site mitigation measures (for example, within the text on ACECs and wildlife habitat areas). We do not believe that off-site mitigation is justifiable, unless it is directly related to the company's site specific project. To require companies to do off-site mitigation is unfair to industry, because the oil and gas industry has been singled out for these types of requirements. In addition, such requirements could make the BLM and the oil industry look very bad. If a party wanted to charge that the BLM was requiring some sort of off-site mitigation commitment before it approved a project, such an action could be interpreted as bribery.

4 Another disturbing aspect of your draft RMP/EIS is the implication in several places that directional drilling can always be used in areas where no surface occupancy is allowed. This is simply not true -- directional drilling can only be used when certain geologic conditions are present. In addition, the magnification of drilling costs by a factor of 2, 3, or 4 is extremely burdensome and can very quickly turn a well prospect with a reasonable risk of success into an uneconomic prospect.

5 We are baffled why your proposal would prohibit geophysical work in NSO areas. We do not believe such a restriction can be justified. There are many seismic techniques available that do not damage surface resources.

6 Regarding the proposed Carter Mountain ACEC, we do not believe that a prohibition on surface-disturbing activities for slopes in excess of 7% is reasonable. We believe we should be allowed the opportunity to operate on slopes steeper than 7% as long as we can prove to you that we can do so in a safe and environmentally sensitive manner.

7 Finally, in the proposed Chapman Bench ACEC there is a 5% threshold of surface disturbance. We are not clear as to how this would apply, but would strongly oppose this concept if we were required to reclaim old disturbed sites which have no relation to our proposed activities in order to get our APD approved. Once again, such off-site mitigation is extremely objectionable.

Thank you for your consideration of our comments.

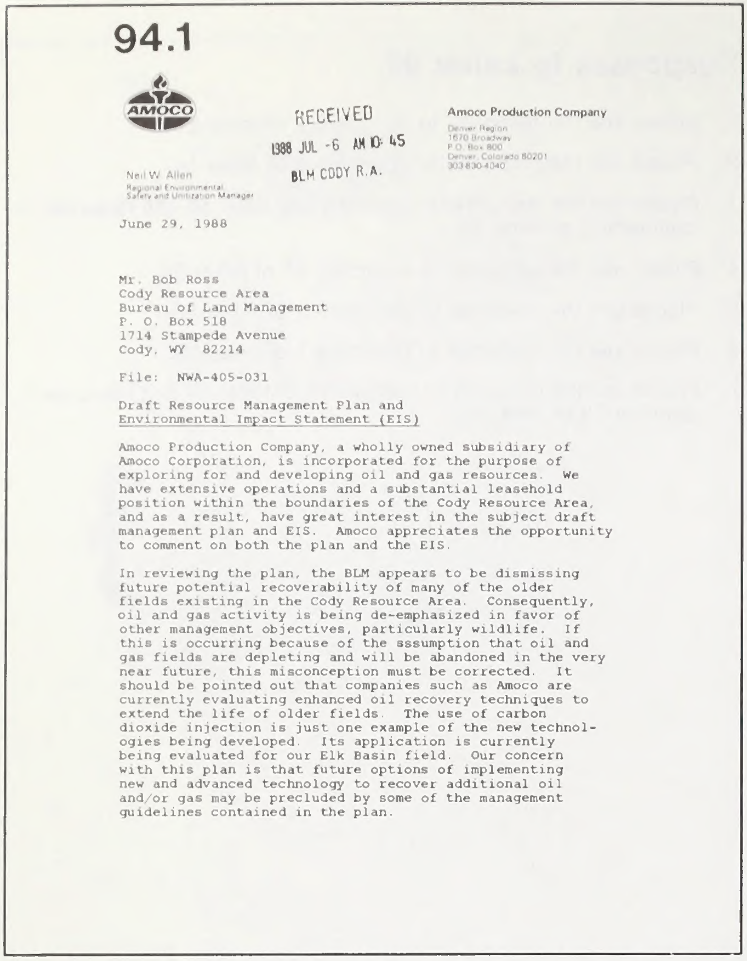
Sincerely,

Lisa Mercier

LM:js

Responses to Letter 93

1. Please see the response to comment 7 of letter 56.
2. Please see the response to comment 8 of letter 56.
3. Please see the response to comment 2 of letter 56 and response to comment 5 of letter 58.
4. Please see the response to comment 11 of letter 56.
5. Please see the response to comment 1 of letter 56.
6. Please see the response to comment 1 of letter 22.
7. Please see the response to comment 6 of letter 56 and response to comment 5 of letter 58.



94.1

AMOCO

Amoco Production Company
Denver Region
1670 Broadway
P.O. Box 800
Denver, Colorado 80201
303 830-4040

Neil W. Allen
Regional Environmental
Safety and Unitization Manager

RECEIVED
1988 JUL -6 AM 10: 45
BLM CODY R.A.

June 29, 1988

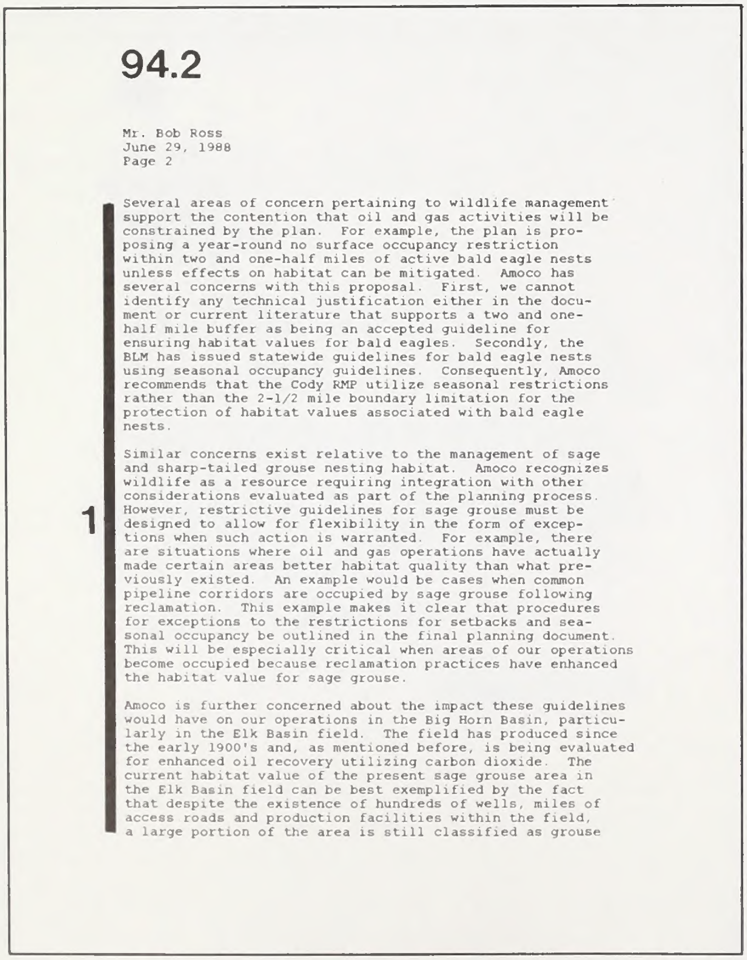
Mr. Bob Ross
Cody Resource Area
Bureau of Land Management
P. O. Box 518
1714 Stampede Avenue
Cody, WY 82214

File: NWA-405-031

Draft Resource Management Plan and
Environmental Impact Statement (EIS)

Amoco Production Company, a wholly owned subsidiary of Amoco Corporation, is incorporated for the purpose of exploring for and developing oil and gas resources. We have extensive operations and a substantial leasehold position within the boundaries of the Cody Resource Area, and as a result, have great interest in the subject draft management plan and EIS. Amoco appreciates the opportunity to comment on both the plan and the EIS.

In reviewing the plan, the BLM appears to be dismissing future potential recoverability of many of the older fields existing in the Cody Resource Area. Consequently, oil and gas activity is being de-emphasized in favor of other management objectives, particularly wildlife. If this is occurring because of the assumption that oil and gas fields are depleting and will be abandoned in the very near future, this misconception must be corrected. It should be pointed out that companies such as Amoco are currently evaluating enhanced oil recovery techniques to extend the life of older fields. The use of carbon dioxide injection is just one example of the new technologies being developed. Its application is currently being evaluated for our Elk Basin field. Our concern with this plan is that future options of implementing new and advanced technology to recover additional oil and/or gas may be precluded by some of the management guidelines contained in the plan.



94.2

Mr. Bob Ross
June 29, 1988
Page 2

1 Several areas of concern pertaining to wildlife management support the contention that oil and gas activities will be constrained by the plan. For example, the plan is proposing a year-round no surface occupancy restriction within two and one-half miles of active bald eagle nests unless effects on habitat can be mitigated. Amoco has several concerns with this proposal. First, we cannot identify any technical justification either in the document or current literature that supports a two and one-half mile buffer as being an accepted guideline for ensuring habitat values for bald eagles. Secondly, the BLM has issued statewide guidelines for bald eagle nests using seasonal occupancy guidelines. Consequently, Amoco recommends that the Cody RMP utilize seasonal restrictions rather than the 2-1/2 mile boundary limitation for the protection of habitat values associated with bald eagle nests.

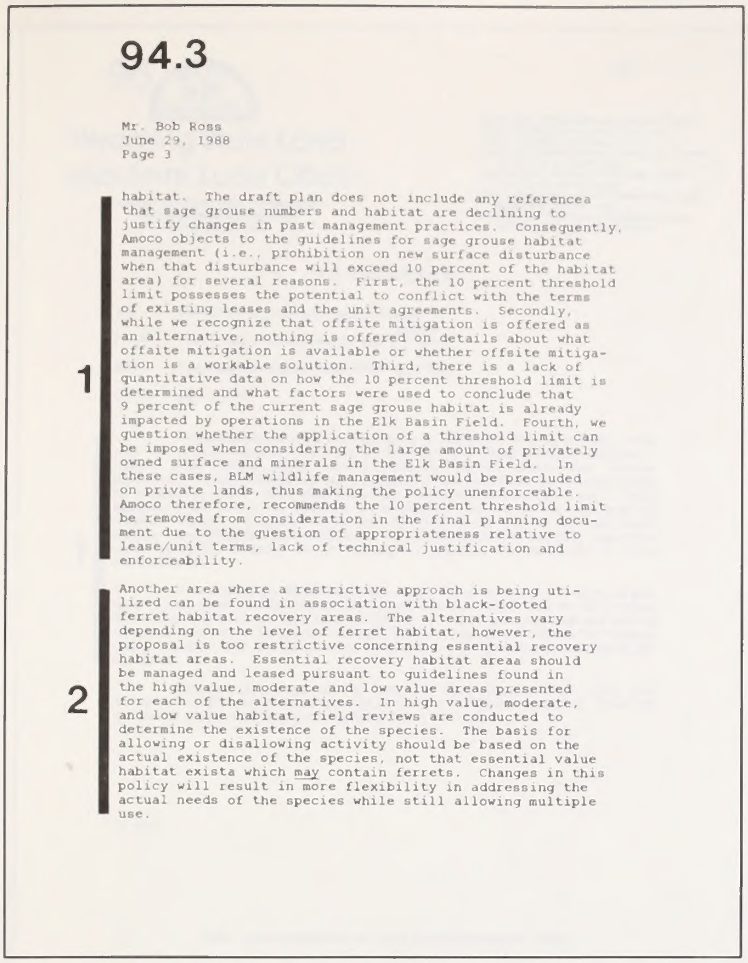
Similar concerns exist relative to the management of sage and sharp-tailed grouse nesting habitat. Amoco recognizes wildlife as a resource requiring integration with other considerations evaluated as part of the planning process. However, restrictive guidelines for sage grouse must be designed to allow for flexibility in the form of exceptions when such action is warranted. For example, there are situations where oil and gas operations have actually made certain areas better habitat quality than what previously existed. An example would be cases when common pipeline corridors are occupied by sage grouse following reclamation. This example makes it clear that procedures for exceptions to the restrictions for setbacks and seasonal occupancy be outlined in the final planning document. This will be especially critical when areas of our operations become occupied because reclamation practices have enhanced the habitat value for sage grouse.

Amoco is further concerned about the impact these guidelines would have on our operations in the Big Horn Basin, particularly in the Elk Basin field. The field has produced since the early 1900's and, as mentioned before, is being evaluated for enhanced oil recovery utilizing carbon dioxide. The current habitat value of the present sage grouse area in the Elk Basin field can be best exemplified by the fact that despite the existence of hundreds of wells, miles of access roads and production facilities within the field, a large portion of the area is still classified as grouse

Responses to Letter 94

1. Please see the response to comment 7 of letter 56 and response to comment 5 of letter 58.
2. Please see the response to comment 8 of letter 56.
3. Please see the response to comment 7 of letter 56.
4. Please see the response to comment 1 of letter 56.
5. Please see the response to comment 11 of letter 56.
6. Please see appendix K of this document.

94.3

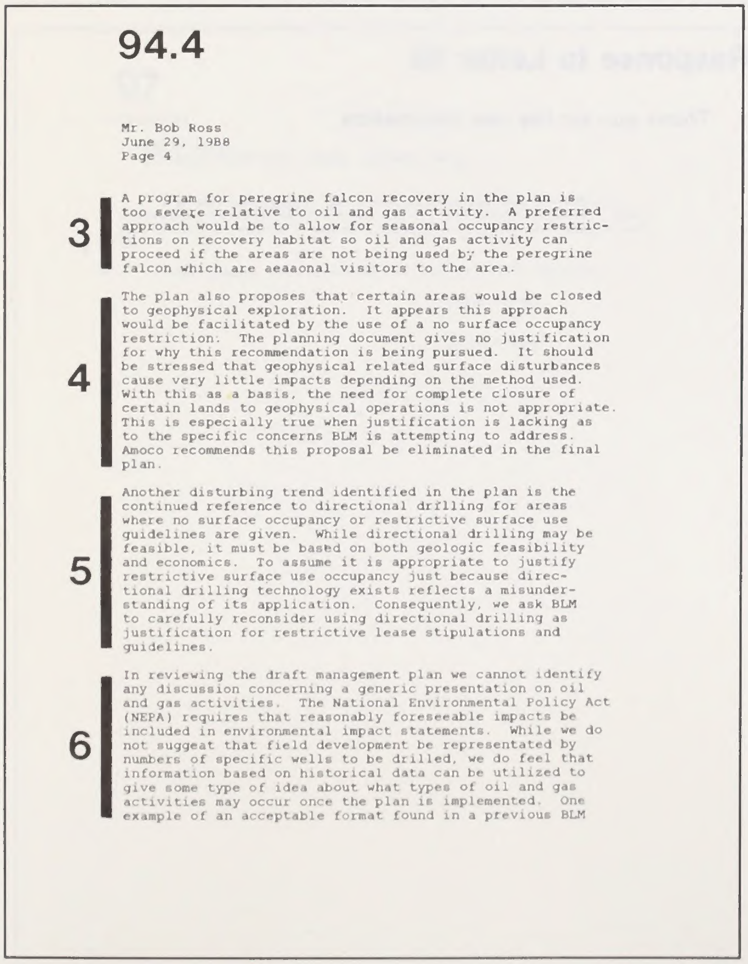


Mr. Bob Ross
June 29, 1988
Page 3

1 habitat. The draft plan does not include any referencea that sage grouse numbers and habitat are declining to justify changes in past management practices. Consequently, Amoco objects to the guidelines for sage grouse habitat management (i.e., prohibition on new surface disturbance when that disturbance will exceed 10 percent of the habitat area) for several reasons. First, the 10 percent threshold limit possesses the potential to conflict with the terms of existing leases and the unit agreements. Secondly, while we recognize that offsite mitigation is offered as an alternative, nothing is offered on details about what offaite mitigation is available or whether offsite mitigation is a workable solution. Third, there is a lack of quantitative data on how the 10 percent threshold limit is determined and what factors were used to conclude that 9 percent of the current sage grouse habitat is already impacted by operations in the Elk Basin Field. Fourth, we question whether the application of a threshold limit can be imposed when considering the large amount of privately owned surface and minerals in the Elk Basin Field. In these cases, BLM wildlife management would be precluded on private lands, thus making the policy unenforceable. Amoco therefore, recommends the 10 percent threshold limit be removed from consideration in the final planning document due to the question of appropriateness relative to lease/unit terms, lack of technical justification and enforceability.

2 Another area where a restrictive approach is being utilized can be found in association with black-footed ferret habitat recovery areas. The alternatives vary depending on the level of ferret habitat, however, the proposal is too restrictive concerning essential recovery habitat areas. Essential recovery habitat areaa should be managed and leased pursuant to guidelines found in the high value, moderate and low value areas presented for each of the alternatives. In high value, moderate, and low value habitat, field reviews are conducted to determine the existence of the species. The basis for allowing or disallowing activity should be based on the actual existence of the species, not that essential value habitat exista which may contain ferrets. Changes in this policy will result in more flexibility in addressing the actual needs of the species while still allowing multiple use.

94.4



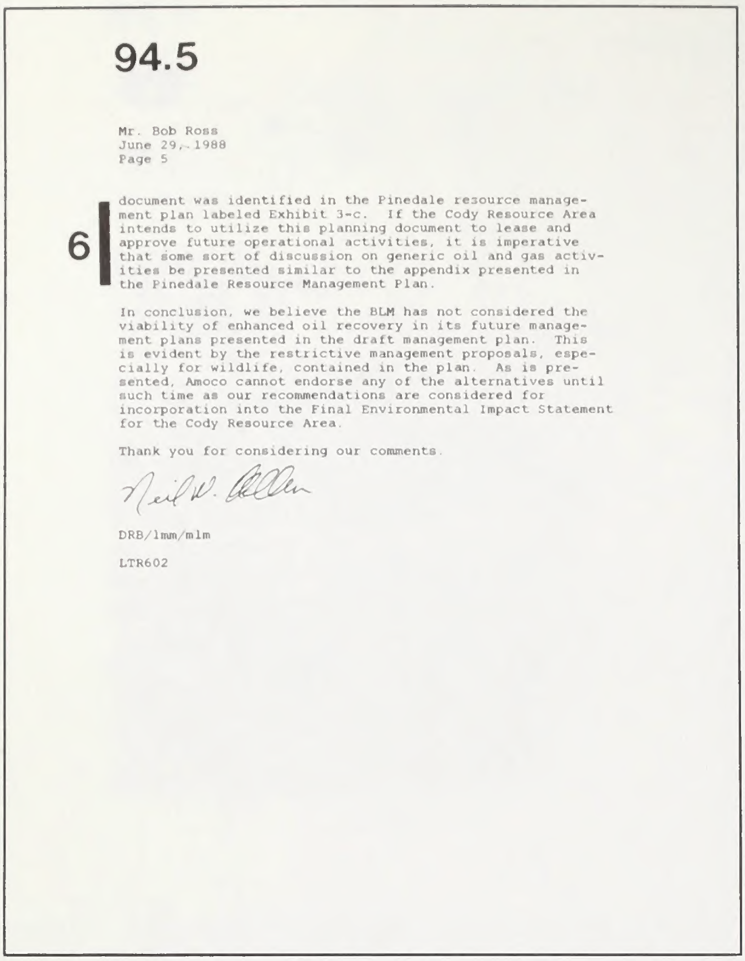
Mr. Bob Ross
June 29, 1988
Page 4

3 A program for peregrine falcon recovery in the plan is too severe relative to oil and gas activity. A preferred approach would be to allow for seasonal occupancy restrictions on recovery habitat so oil and gas activity can proceed if the areas are not being used by the peregrine falcon which are aeaaonal visitors to the area.

4 The plan also proposes that certain areas would be closed to geophysical exploration. It appears this approach would be facilitated by the use of a no surface occupancy restriction. The planning document gives no justification for why this recommendation is being pursued. It should be stressed that geophysical related surface disturbances cause very little impacts depending on the method used. With this as a basis, the need for complete closure of certain lands to geophysical operations is not appropriate. This is especially true when justification is lacking as to the specific concerns BLM is attempting to address. Amoco recommends this proposal be eliminated in the final plan.

5 Another disturbing trend identified in the plan is the continued reference to directional drilling for areas where no surface occupancy or restrictive surface use guidelines are given. While directional drilling may be feasible, it must be based on both geologic feasibility and economics. To assume it is appropriate to justify restrictive surface use occupancy just because directional drilling technology exists reflects a misunderstanding of its application. Consequently, we ask BLM to carefully reconsider using directional drilling as justification for restrictive lease stipulations and guidelines.

6 In reviewing the draft management plan we cannot identify any discussion concerning a generic presentation on oil and gas activities. The National Environmental Policy Act (NEPA) requires that reasonably foreseeable impacts be included in environmental impact statements. While we do not suggeat that field development be representated by numbers of specific wells to be drilled, we do feel that information based on historical data can be utilized to give some type of idea about what types of oil and gas activities may occur once the plan is implemented. One example of an acceptable format found in a previous BLM



94.5

Mr. Bob Ross
June 29, 1988
Page 5

6 document was identified in the Pinedale resource management plan labeled Exhibit 3-c. If the Cody Resource Area intends to utilize this planning document to lease and approve future operational activities, it is imperative that some sort of discussion on generic oil and gas activities be presented similar to the appendix presented in the Pinedale Resource Management Plan.

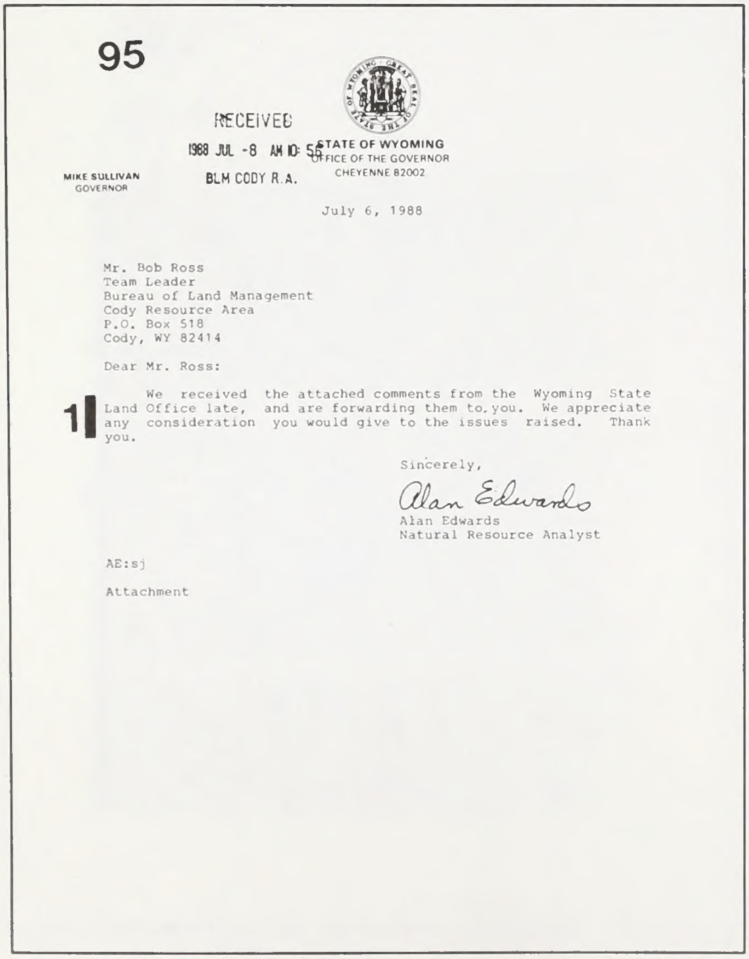
In conclusion, we believe the BLM has not considered the viability of enhanced oil recovery in its future management plans presented in the draft management plan. This is evident by the restrictive management proposals, especially for wildlife, contained in the plan. As is presented, Amoco cannot endorse any of the alternatives until such time as our recommendations are considered for incorporation into the Final Environmental Impact Statement for the Cody Resource Area.

Thank you for considering our comments.

Neil W. Allen

DRB/lmm/mlm

LTR602



95

RECEIVED
1988 JUL -8 AM 10:56
BLM CODY R.A.

STATE OF WYOMING
OFFICE OF THE GOVERNOR
CHEYENNE 82002

MIKE SULLIVAN
GOVERNOR

July 6, 1988

Mr. Bob Ross
Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

Dear Mr. Ross:

1 We received the attached comments from the Wyoming State Land Office late, and are forwarding them to you. We appreciate any consideration you would give to the issues raised. Thank you.

Sincerely,

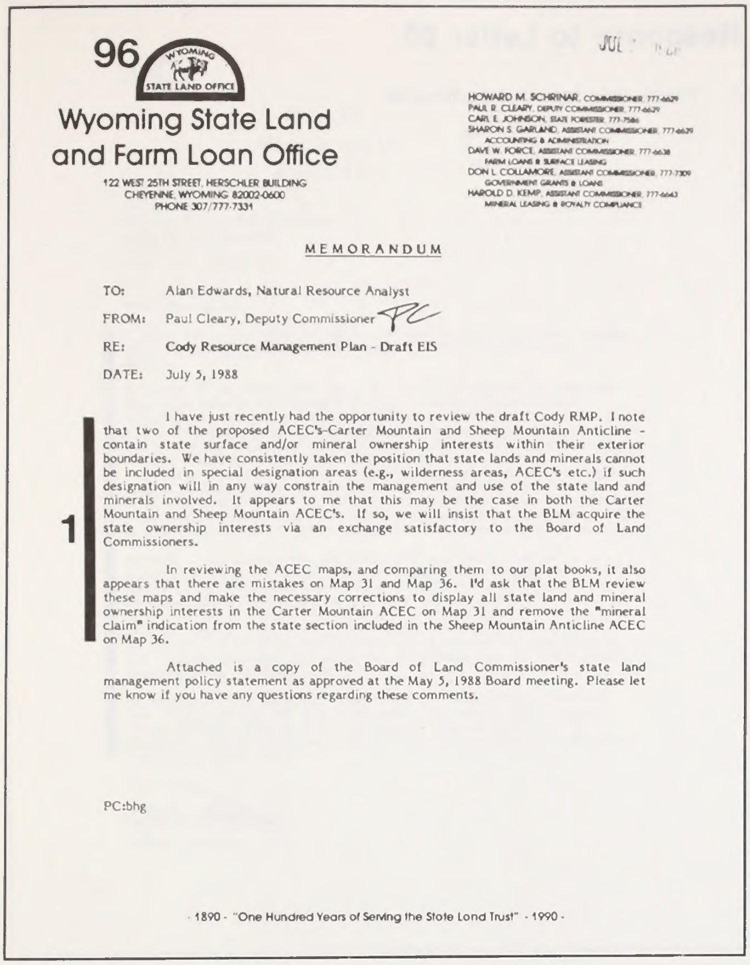
Alan Edwards
Alan Edwards
Natural Resource Analyst

AE:sj

Attachment

Response to Letter 95

1. Thank you for the new information.



96

STATE LAND OFFICE
WYOMING

JUL

Wyoming State Land
and Farm Loan Office

122 WEST 25TH STREET, HERSCHLER BUILDING
CHEYENNE, WYOMING 82002-0600
PHONE 307/777-7331

HOWARD M. SCHRINAR, COMMISSIONER, 777-6629
PAUL R. CLEARY, DEPUTY COMMISSIONER, 777-6629
CARL E. JOHNSON, STATE FORESTER, 777-7586
SHARON S. GARLAND, ASSISTANT COMMISSIONER, 777-6629
ACCOUNTING & ADMINISTRATION
DAVE W. FORCE, ASSISTANT COMMISSIONER, 777-6638
FARM LOANS & SURFACE LEASING
DON L. COLLAMORE, ASSISTANT COMMISSIONER, 777-7309
GOVERNMENT GRANTS & LOANS
HAROLD D. KEMP, ASSISTANT COMMISSIONER, 777-6643
MINERAL LEASING & ROYALTY COMPLIANCE

MEMORANDUM

TO: Alan Edwards, Natural Resource Analyst
FROM: Paul Cleary, Deputy Commissioner PC
RE: Cody Resource Management Plan - Draft EIS
DATE: July 5, 1988

1 I have just recently had the opportunity to review the draft Cody RMP. I note that two of the proposed ACEC's-Carter Mountain and Sheep Mountain Anticline - contain state surface and/or mineral ownership interests within their exterior boundaries. We have consistently taken the position that state lands and minerals cannot be included in special designation areas (e.g., wilderness areas, ACEC's etc.) if such designation will in any way constrain the management and use of the state land and minerals involved. It appears to me that this may be the case in both the Carter Mountain and Sheep Mountain ACEC's. If so, we will insist that the BLM acquire the state ownership interests via an exchange satisfactory to the Board of Land Commissioners.

In reviewing the ACEC maps, and comparing them to our plat books, it also appears that there are mistakes on Map 31 and Map 36. I'd ask that the BLM review these maps and make the necessary corrections to display all state land and mineral ownership interests in the Carter Mountain ACEC on Map 31 and remove the "mineral claim" indication from the state section included in the Sheep Mountain Anticline ACEC on Map 36.

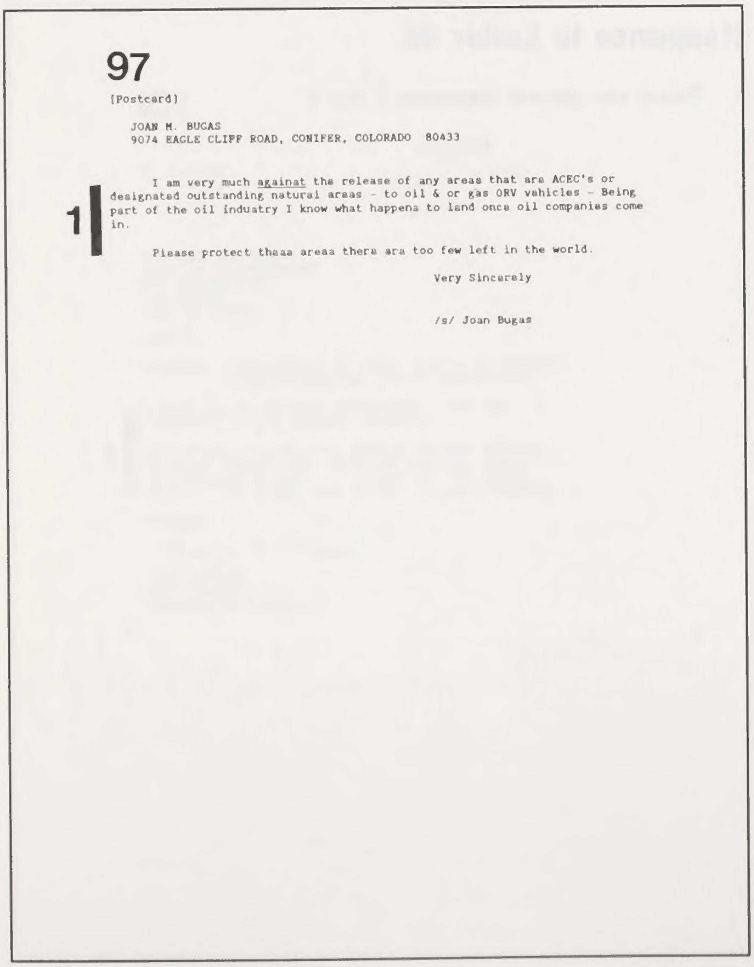
Attached is a copy of the Board of Land Commissioner's state land management policy statement as approved at the May 5, 1988 Board meeting. Please let me know if you have any questions regarding these comments.

PC:bhg

- 1890 - "One Hundred Years of Serving the State Land Trust" - 1990 -

Response to Letter 96

1. The BLM does not intend to constrain the management or use of state lands and minerals. Thank you for pointing out the error on map 36. The map has been modified and reprinted in this document.



97

(Postcard)

JOAN M. BUGAS
9074 EAGLE CLIFF ROAD, CONIFER, COLORADO 80433

1 I am very much against the release of any areas that are ACEC's or designated outstanding natural areas - to oil & or gas ORV vehicles - Being part of the oil industry I know what happens to land once oil companies come in.

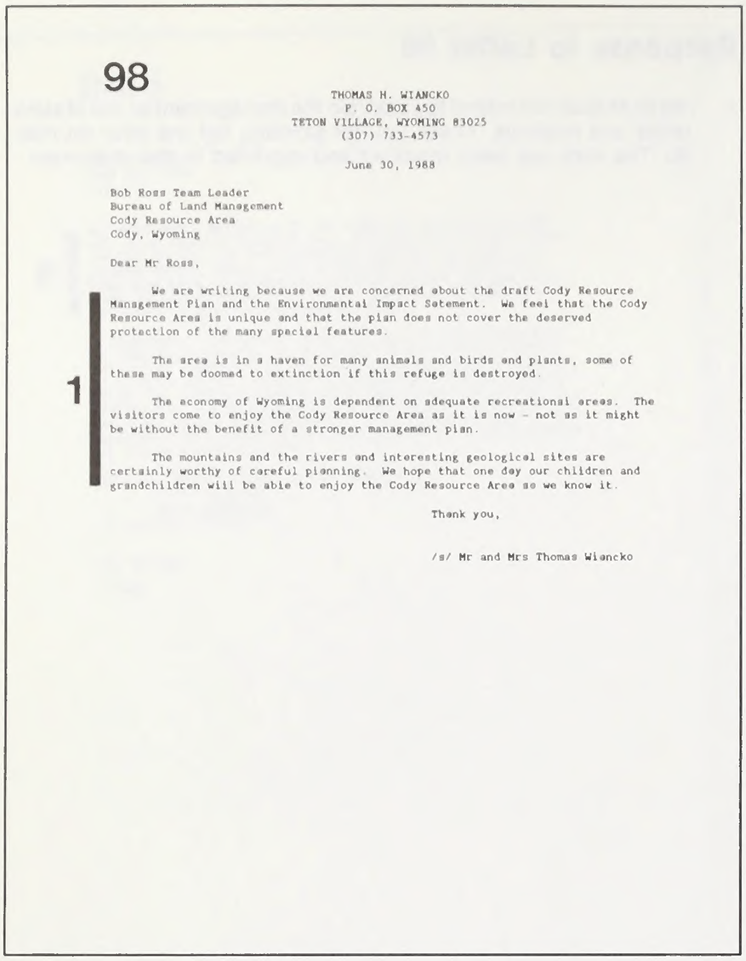
Please protect these areas there are too few left in the world.

Very Sincerely

/s/ Joan Bugas

Response to Letter 97

1. Please see general response 4.



98

THOMAS H. WIANCKO
P. O. BOX 450
TETON VILLAGE, WYOMING 83025
(307) 733-4573

June 30, 1988

Bob Ross Team Leader
Bureau of Land Management
Cody Resource Area
Cody, Wyoming

Dear Mr Ross,

1 We are writing because we are concerned about the draft Cody Resource Management Plan and the Environmental Impact Setement. We feel that the Cody Resource Area is unique and that the plan does not cover the deserved protection of the many special features.

The area is in a haven for many animals and birds and plants, some of these may be doomed to extinction if this refuge is destroyed.

The economy of Wyoming is dependent on adequate recreational areas. The visitors come to enjoy the Cody Resource Area as it is now - not as it might be without the benefit of a stronger management plan.

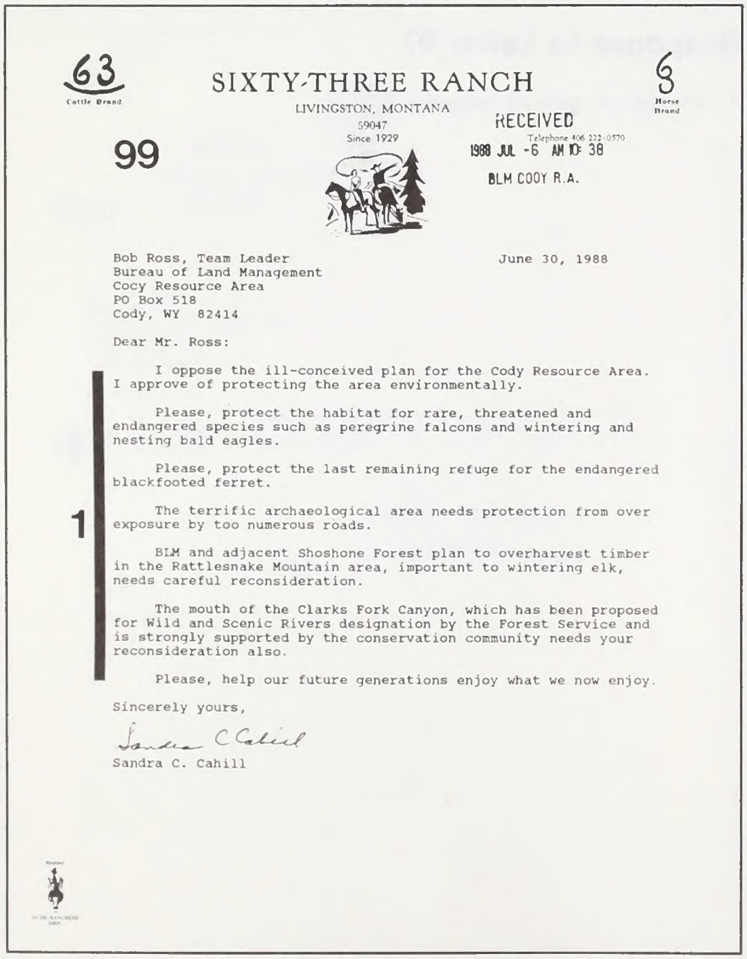
The mountains and the rivers and interesting geological sites are certainly worthy of careful planning. We hope that one day our children and grandchildren will be able to enjoy the Cody Resource Area as we know it.

Thank you,

/s/ Mr and Mrs Thomas Wiancko

Response to Letter 98

1. Thank you for your comments.



63
Cattle Brand

SIXTY-THREE RANCH
LIVINGSTON, MONTANA
59047
Since 1929
Telephone 406 222-0570

6
Horse Brand

99

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1988 JUL -6 AM 10: 38
BLM CODY R.A.

June 30, 1988

Bob Ross, Team Leader
Bureau of Land Management
Cocy Resource Area
PO Box 518
Cody, WY 82414

Dear Mr. Ross:

1 I oppose the ill-conceived plan for the Cody Resource Area. I approve of protecting the area environmentally.

Please, protect the habitat for rare, threatened and endangered species such as peregrine falcons and wintering and nesting bald eagles.

Please, protect the last remaining refuge for the endangered blackfooted ferret.

The terrific archaeological area needs protection from over exposure by too numerous roads.

BLM and adjacent Shoshone Forest plan to overharvest timber in the Rattlesnake Mountain area, important to wintering elk, needs careful reconsideration.

The mouth of the Clarks Fork Canyon, which has been proposed for Wild and Scenic Rivers designation by the Forest Service and is strongly supported by the conservation community needs your reconsideration also.

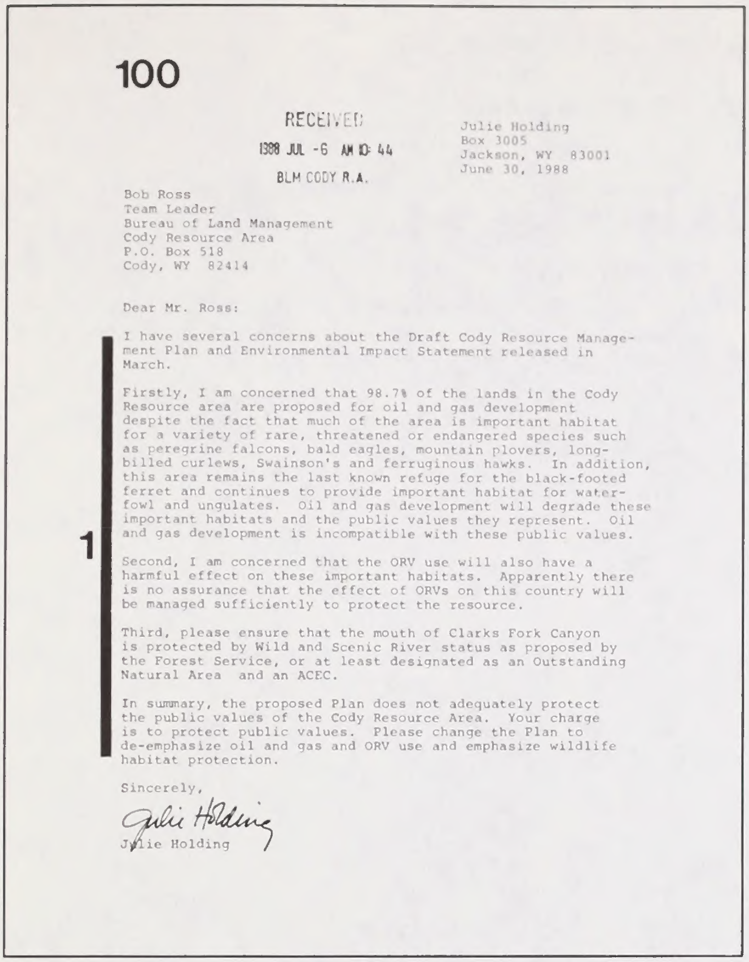
Please, help our future generations enjoy what we now enjoy.

Sincerely yours,

Sandra C Cahill
Sandra C. Cahill

Response to Letter 99

1. Please see general responses 3 and 5.



100

RECEIVED
1988 JUL -6 AM 10: 44
BLM CODY R.A.

Julie Holding
Box 3005
Jackson, WY 83001
June 30, 1988

Bob Ross
Team Leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody, WY 82414

Dear Mr. Ross:

I have several concerns about the Draft Cody Resource Management Plan and Environmental Impact Statement released in March.

Firstly, I am concerned that 98.7% of the lands in the Cody Resource area are proposed for oil and gas development despite the fact that much of the area is important habitat for a variety of rare, threatened or endangered species such as peregrine falcons, bald eagles, mountain plovers, long-billed curlews, Swainson's and ferruginous hawks. In addition, this area remains the last known refuge for the black-footed ferret and continues to provide important habitat for waterfowl and ungulates. Oil and gas development will degrade these important habitats and the public values they represent. Oil and gas development is incompatible with these public values. 1

Second, I am concerned that the ORV use will also have a harmful effect on these important habitats. Apparently there is no assurance that the effect of ORVs on this country will be managed sufficiently to protect the resource.

Third, please ensure that the mouth of Clarks Fork Canyon is protected by Wild and Scenic River status as proposed by the Forest Service, or at least designated as an Outstanding Natural Area and an ACEC.

In summary, the proposed Plan does not adequately protect the public values of the Cody Resource Area. Your charge is to protect public values. Please change the Plan to de-emphasize oil and gas and ORV use and emphasize wildlife habitat protection.

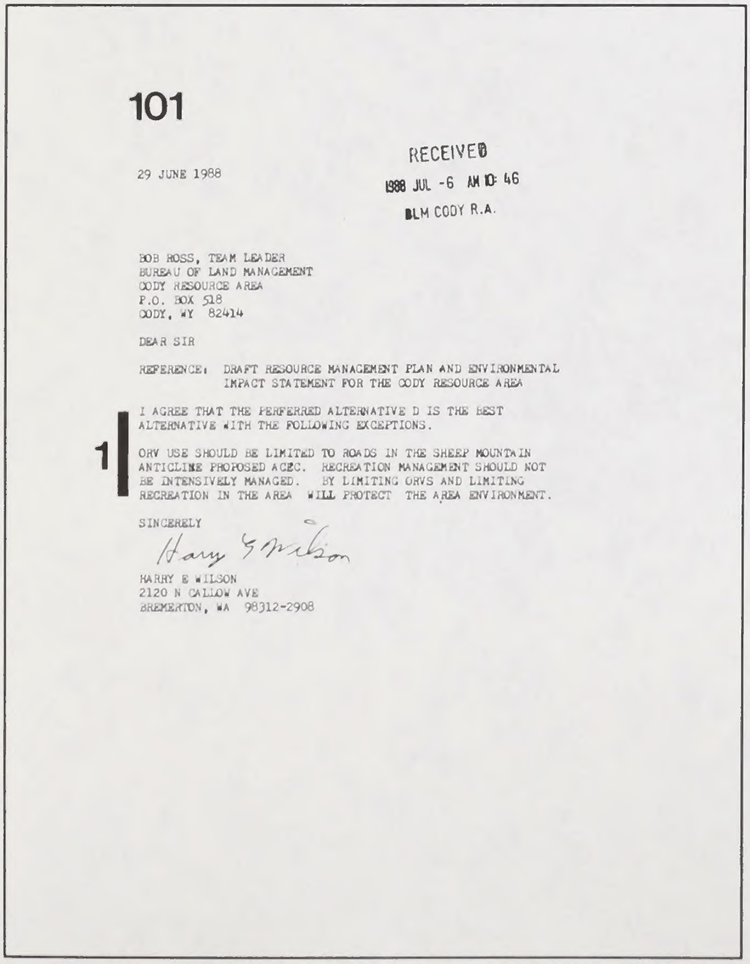
Sincerely,

Julie Holding

Julie Holding

Response to Letter 100

1. Please see general responses 3 and 5.



101

29 JUNE 1988

RECEIVED
1988 JUL -6 AM 10: 46
BLM CODY R.A.

BOB ROSS, TEAM LEADER
BUREAU OF LAND MANAGEMENT
CODY RESOURCE AREA
P.O. BOX 518
CODY, WY 82414

DEAR SIR

REFERENCE: DRAFT RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT FOR THE CODY RESOURCE AREA

I AGREE THAT THE PERFERRED ALTERNATIVE D IS THE BEST ALTERNATIVE WITH THE FOLLOWING EXCEPTIONS.

1 ORV USE SHOULD BE LIMITED TO ROADS IN THE SHEEP MOUNTAIN ANTICLINE PROPOSED ACEC. RECREATION MANAGEMENT SHOULD NOT BE INTENSIVELY MANAGED. BY LIMITING ORVS AND LIMITING RECREATION IN THE AREA WILL PROTECT THE AREA ENVIRONMENT.

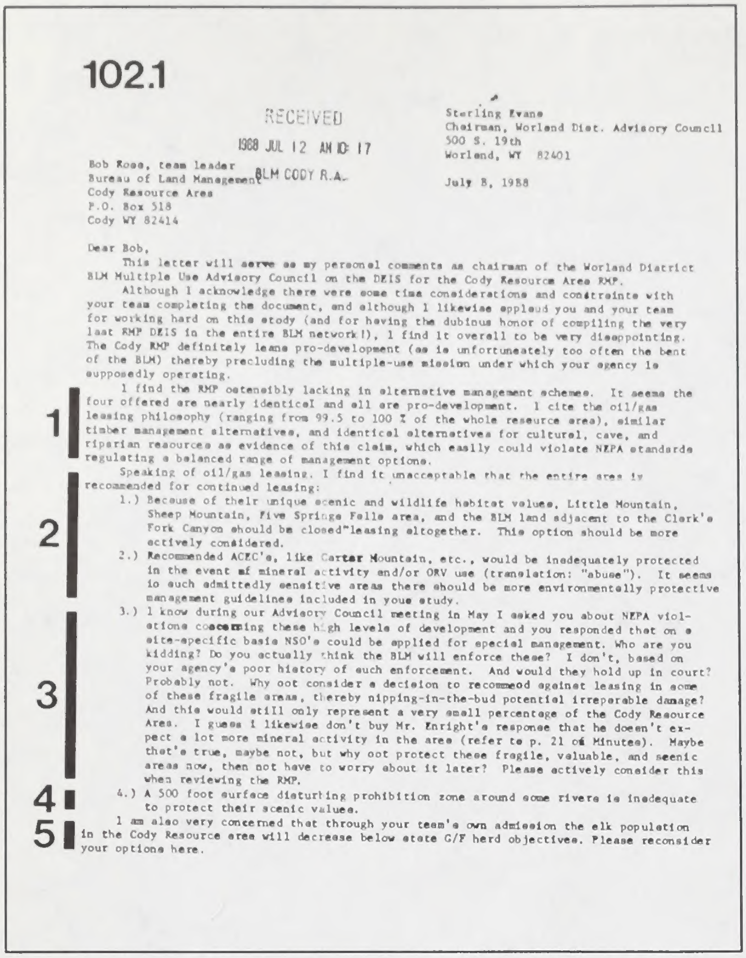
SINCERELY

Harry E Wilson

HARRY E WILSON
2120 N CALLOW AVE
BREMERTON, WA 98312-2908

Response to Letter 101

1. Thank you for your comments.



102.1

RECEIVED

1988 JUL 12 AM 10: 17

BLM CODY R.A.

Sterling Evans
Chairman, Worland Dist. Advisory Council
500 S. 19th
Worland, WY 82401

July 8, 1988

Bob Ross, team leader
Bureau of Land Management
Cody Resource Area
P.O. Box 518
Cody WY 82414

Dear Bob,

This letter will serve as my personal comments as chairman of the Worland District BLM Multiple Use Advisory Council on the DEIS for the Cody Resource Area RMP.

Although I acknowledge there were some time considerations and constraints with your team completing the document, and although I likewise applaud you and your team for working hard on this study (and for having the dubious honor of compiling the very last RMP DEIS in the entire BLM network!), I find it overall to be very disappointing. The Cody RMP definitely leans pro-development (as is unfortunately too often the bent of the BLM) thereby precluding the multiple-use mission under which your agency is supposedly operating.

1 I find the RMP ostensibly lacking in alternative management schemes. It seems the four offered are nearly identical and all are pro-development. I cite the oil/gas leasing philosophy (ranging from 99.5 to 100 % of the whole resource area), similar timber management alternatives, and identical alternatives for cultural, cave, and riparian resources as evidence of this claim, which easily could violate NEPA standards regulating a balanced range of management options.

2 Speaking of oil/gas leasing, I find it unacceptable that the entire area is recommended for continued leasing:

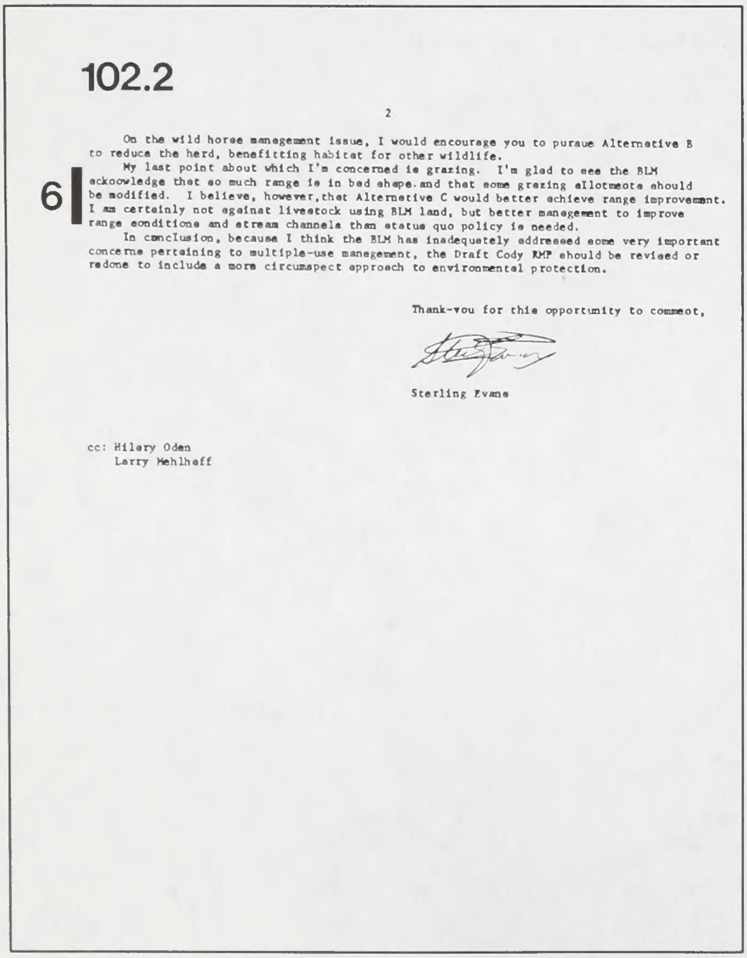
1.) Because of their unique scenic and wildlife habitat values, Little Mountain, Sheep Mountain, Five Springs Falls area, and the BLM land adjacent to the Clark's Fork Canyon should be closed"leasing altogether. This option should be more actively considered.

2.) Recommended ACEC's, like Carter Mountain, etc., would be inadequately protected in the event of mineral activity and/or ORV use (translation: "abuse"). It seems in such admittedly sensitive areas there should be more environmentally protective management guidelines included in your study.

3 3.) I know during our Advisory Council meeting in May I asked you about NEPA violations concerning these high levels of development and you responded that on a site-specific basis NSO's could be applied for special management. Who are you kidding? Do you actually think the BLM will enforce these? I don't, based on your agency's poor history of such enforcement. And would they hold up in court? Probably not. Why not consider a decision to recommend against leasing in some of these fragile areas, thereby nipping-in-the-bud potential irreparable damage? And this would still only represent a very small percentage of the Cody Resource Area. I guess I likewise don't buy Mr. Enright's response that he doesn't expect a lot more mineral activity in the area (refer to p. 21 of Minutes). Maybe that's true, maybe not, but why not protect these fragile, valuable, and scenic areas now, then not have to worry about it later? Please actively consider this when reviewing the RMP.

4 4.) A 500 foot surface disturbing prohibition zone around some rivers is inadequate to protect their scenic values.

5 I am also very concerned that through your team's own admission the elk population in the Cody Resource area will decrease below state G/F herd objectives. Please reconsider your options here.



102.2

2

On the wild horse management issue, I would encourage you to pursue Alternative B to reduce the herd, benefitting habitat for other wildlife.

6 My last point about which I'm concerned is grazing. I'm glad to see the BLM acknowledge that so much range is in bad shape.and that some grazing allotments should be modified. I believe, however,that Alternative C would better achieve range improvement. I am certainly not against livestock using BLM land, but better management to improve range conditions and stream channels than status quo policy is needed.

In conclusion, because I think the BLM has inadequately addressed some very important concerns pertaining to multiple-use management, the Draft Cody RMP should be revised or redone to include a more circumspect approach to environmental protection.

Thank-you for this opportunity to comment,

Sterling Evans

cc: Hilary Oden
Larry Mehlhoff

Response to Letter 102

1. Please see the response to comment 8 of letter 69.
2. Please see general responses 3, 4, and 5.
3. Please see the response to comment 6 of letter 4.
4. Please see the response to comment 4 of letter 3.
5. Please see general response 6.
6. We do not believe that our proposed management for improvement of grazing lands and aquatic systems is "status quo." Please see the response to comment 6 of letter 69.

APPENDIXES

INTRODUCTION

Appendixes A, C, D, F, H, and I have not been reprinted in this final document. However, there is a supplement to Appendix E of the draft RMP/EIS. Appendixes B and G have been modified; the new versions appear herein. Appendixes J and K are new. Additions and corrections for the appendixes in the draft RMP/EIS are listed herein, followed by appendixes B, E, G, J, and K.

ADDITIONS AND CORRECTIONS FOR APPENDIXES

Page numbers refer to pages in the draft RMP/EIS. A partial paragraph at the top of a column counts as paragraph 1. The changed or added material in the "Should Read" column is in bold type.

Draft Page	Column	Paragraph	Line(s)	Should Read
296	2	Add a new section after 3		A new section should be added with the subheading **Hazardous Materials and Waste Management** **The BLM considers the following to be hazardous materials: Those materials listed or characterzied in 40 CFR 261 under regulations of the Resource Conservation and Recovery Act (1976), as amended, and defined in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (1980), that are disposed as wastes or released into the environment.** **The primary statutory references bearing on BLM's involvement with hazardous materials and wastes are: Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) also known as "Superfund", and the Superfund Amendments and Reauthorization Act (SARA).**

ADDITIONS AND CORRECTIONS FOR APPENDIXES (Continued)

Draft Page	Column	Paragraph	Line(s)	Should Read
297	1	4	1	**Grazing Management is governed by the Taylor Grazing Act, the Federal Land Policy and Management Act, the Public Rangelands Improvement Act, and 43 CFR 4000. Practices and procedures initiated on public lands for the management of livestock grazing are also controlled or restricted by the policies and regulations as they relate to other resources. Grazing leases or permits will be issued in accordance with the designated preference and authorized season-of-use until such time as monitoring indicates a change in management direction is required.** Restoration or improvement . . .
309	Table F-1			Change 7,819 to **0** for Alternative D.
309	Table F-1			Change 19,000 to **12,285** for Alternatives C and D.
310	3	1	9	. . . land where **no** water sources . . .
310	3	4	2, 3	. . . are **expected. Land can** be . . .
310	3	5	1, 2	. . . been **received. Lands** can . . .
310	4	5	3	. . . when no **desert land applications** have been received.
312	2	1	3	Change 19 to **499**
312	3	6	1	Prohibits agricultural **entry** and disposal. . . .
312	3	10	1	mineral **and** agricultural entry . . .

APPENDIX B

STANDARD MITIGATION GUIDELINES

INTRODUCTION

This appendix is a revised from appendix B in the draft RMP/EIS. These guidelines have been evolving from their beginnings as oil and gas lease stipulations to broader application to other land uses. We hope this will clarify the meaning, intent, and use of the guidelines.

About two years ago, the BLM developed the "Wyoming BLM Standard Oil and Gas Lease Stipulations." During implementation, the BLM recognized that similar kinds of environmental protection requirements should be applied to land uses other than those related to oil and gas exploration and development. Using the standard oil and gas lease stipulations as a basis, we began development of the "Wyoming BLM Standard Mitigation Guidelines for Surface Disturbing Activities." The term *guidelines* better describes the intent and use of these mitigation standards than would *stipulations, measures,* or *requirements.*

These guidelines are used in the RMP/EIS process as a tool to help develop the RMP alternatives and to provide a baseline for comparative impact analysis through which we can arrive at RMP decisions. They will be used in the same manner in analyses of activity plans and other site-specific proposals.

These guidelines and their wording are a matter of policy. As such, further refinement in their wording and application may be made in the future. Any further refinement of these guidelines and any development of program-specific standard stipulations will be handled through administrative review, not through the RMP/EIS process. Appropriate public involvement and input will be included.

PURPOSE

The primary purpose of these guidelines is to attain statewide consistency in the method of determining requirements for avoiding and mitigating environmental impacts and conflicts among resources or land uses. "Consistency" does not mean that requirements would be identical for all similar types of land use activities or that the requirements for a given land use activity would be identical in all areas where it may occur.

Application of the guidelines is intended to (a) reserve for the BLM the right to modify the operations of all surface-disturbing activities as part of the statutory requirements for environmental protection, and (b) inform a potential lessee, permittee, or operator of the requirements that must be met when using BLM-administered public lands. The guidelines may be used directly as stipulations, or they may be modified with specific or specialized mitigation following the submission of a detailed plan of development or other project proposal and an environmental analysis.

Resource activities or programs without a standardized set of permit or operation stipulations can use the mitigation guidelines as conditions of approval or as a baseline for developing specific stipulations for a given activity or program.

There are two ways in which the standard mitigation guidelines are used in the RMP/EIS process:

> As part of the planning criteria used in developing the RMP alternatives, the Wyoming BLM standard mitigation guidelines become conditions of the actions being proposed or considered in each alternative as appropriate.
>
> In the analytical processes of developing the alternatives and analyzing the impacts of the alternatives, the guidelines are used for (a) development of a baseline for measuring and comparing impacts among the alternatives, (b) identification of other actions and alternatives that should be considered, and (c) determination of whether more stringent or less stringent mitigations should be considered.

Because the standard mitigation guidelines are integrated into the RMP/EIS process and used in conducting site-specific environmental analyses, the application of stipulations derived through the guidelines will provide more consistency with planning decisions and plan implementation than has occurred in the past. Application of the standard mitigation guidelines to all human-caused surface-disturbing activities on BLM-administered public lands will provide more uniformity in mitigation than has occurred in the past.

WYOMING BLM STANDARD MITIGATION GUIDELINES FOR SURFACE-DISTURBING ACTIVITIES

1. Surface Disturbance Mitigation Guideline

Surface disturbance will be restricted in any of the following areas or conditions. Modifications to this limitation may be approved in writing by the Authorized Officer.

a. Slopes in excess of 25 percent.

b. Within important scenic areas identified in a land use plan (Class I and II Visual Resource Management areas).

c. Within 500 feet of surface water and/or riparian areas.

d. Within either one-quarter mile or the visual horizon (whichever is closer) of historic trails.

e. Construction with frozen material or during periods when the soil material is saturated, frozen, or when watershed damage is likely to occur.

Guidance

The intent of the **surface disturbance mitigation guideline** is to inform interested parties (potential lessees, permittees, or operators) that when one or more of the five conditions (a through e) exists, surface-disturbing activities will be restricted or prohibited, unless or until the permittee or his designated representative and the surface management agency (SMA) arrive at an acceptable plan for mitigation of anticipated impacts. This negotiation will occur prior to development.

Specific criteria (e.g., 500 feet from water) have been established based upon the best information available. However, such items as geographical areas and seasons must be delineated at the field level.

Waiver or modification of requirements developed from this guideline must be based upon environmental analysis of proposals such as plans of development, plans of operation, or applications for permit to drill and, if necessary, must allow for other mitigation to be applied on a site specific basis.

2. Wildlife Mitigation Guideline

a. To protect important big game winter habitat, activities or surface use will not be allowed during the period from November 15 to April 30 within certain areas encompassed by the authorization. The same criterion applies to defined big game birthing areas from the period of May 1 to June 30.

This limitation may or may not apply to extended long-term operation and maintenance of a developed project, pending environmental analysis of any operational or production aspects.

Modifications to this limitation in any year may be approved in writing by the Authorized Officer.

b. To protect important raptor and/or sage and sharp-tailed grouse nesting habitat, activities or surface use will not be allowed during the period from February 1 to July 31 within certain areas encompassed by the authorization. The same criterion applies to defined raptor and game bird winter concentration areas from the period of November 15 to April 30. This limitation may or may not apply to extended long-term operation and maintenance of a developed project, pending environmental analysis of any operational or production aspects.

Modifications to this limitation in any year may be approved in writing by the Authorized Officer.

c. No activities or surface use will be allowed on that portion of the authorization area identified within *(legal description)* for the purpose of protecting (*e.g., sage/sharp-tailed grouse breeding grounds, and/or other species/activities*) habitat.

Modifications to this limitation in any year may be approved in writing by the Authorized Officer.

d. Portions of the authorized use area legally described as (*legal description*) are known or suspected to be essential habitat for (*species name*), which is a threatened/endangered species. Prior to conducting any on-site activities, the lessee/permittee/operator will be required to conduct inventories or studies in accordance with BLM and Fish and Wildlife Service (FWS) guidelines to verify the presence or absence of this species. In the event that (*species name*) occurrence is identified, the lessee/permittee/operator will be required to modify operational plans to include the protection requirements of this species and its habitat (*e.g., seasonal use restrictions, occupancy limitations, facility design modifications*).

Guidance

The **wildlife mitigation guideline** is intended to provide two basic types of protection, seasonal restriction (a and b) and prohibition of activities or surface use (c). Item d, of course, is specific to situations involving threatened and endangered species. Legal descriptions will ultimately be required and should be measurable and legally definable. There are no minimum subdivision requirements at this time. The area delineated can and should be defined as necessary, based upon current biological data, prior to the time of processing an application and issuing the use authorization. The legal description must eventually become a condition for approval of the permit, plan of development, and/or other use authorization.

The seasonal restriction section identifies three example groups of species and delineates three similar time frame restrictions. The big game species, including elk, moose, deer, antelope, and bighorn sheep, all require protection of crucial winter range between November 15 and April 30. Elk and bighorn sheep also require protection from disturbance during the period of May 1 to June 30, when they typically occupy distinct calving and lambing areas. Raptors include eagles; accipiters; falcons (peregrine, prairie, and merlin); buteos (ferruginous and Swainson's hawks); osprey; and burrowing owls. The raptors, sage grouse, and sharp-tailed grouse all require nesting protection during periods between February 1 and July 31. The same birds often require protection from disturbance during the period of November 15 through April 30 while they occupy winter concentration areas.

Item c, regarding the prohibition of activity or surface use, is intended for protection of unique wildlife habitat areas or values within the use area. These areas or values must be factors that limit life-cycle activities (e.g., sage grouse strutting grounds, known threatened and endangered species habitat) that cannot be protected using seasonal restrictions.

Waiver or modification of requirements developed from this guideline must be based upon environmental analysis of proposals such as plans of development, plans of operation, or Applications for Permit to Drill and, if necessary, must allow for other mitigation to be applied on a site-specific basis.

3. Cultural Resource Mitigation Guideline

When a proposed discretionary land use has potential for affecting the characteristics which qualify a cultural property for the National Register of Historic Places, mitigation will be considered. In accordance with Section 106 of the Historic Preservation Act, procedures specified in 36 CFR 800 will be used in consultation with the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation in arriving at determinations regarding the need and type of mitigation to be required.

Guidance

The preferred strategy for treating potential adverse effects on cultural properties is *avoidance*, not prohibition. If avoidance involves project relocation, the new project area may also require cultural resource inventory. If avoidance is imprudent or unfeasible, appropriate mitigation may include excavation (data recovery), stabilization, monitoring, protective barriers and signs, or other physical and administrative measures.

Reports documenting results of cultural resource inventory, evaluation, and the establishment of mitigation alternatives (if necessary) shall be written according to standards contained in BLM Manuals, in the cultural resource permit stipulations, and in other policy issued by the BLM. These reports must provide sufficient information for Section 106 consultation. Reports shall be reviewed for adequacy by the appropriate BLM archaeologist. If cultural properties on, or eligible for, the National Register are located within these areas of potential impact and cannot be avoided, the Authorized Officer shall begin the Section 106 consultation process in accordance with the procedures contained in 36 CFR 800.

Mitigation measures shall be implemented according to the mitigation plan approved by the BLM Authorized Officer. Such plans are usually prepared by the land use applicant's contract archaeologist according to BLM specifications. Mitigation plans will be reviewed as part of Section 106 consultation for National Register eligible or listed properties. The extent and nature of recommended mitigation shall be commensurate with the significance of the cultural resource involved and the anticipated extent of damage. Reasonable costs for mitigation will be borne by the land use applicant. Mitigation must be cost-effective and realistic. It must consider project requirements and limitations, input from concerned parties, and be BLM-approved or BLM-formulated.

Mitigation of paleontological and natural history sites will be treated on a case-by-case basis. Factors such as site significance, economics, safety, and project urgency must be taken into account when making a decision to mitigate. Authority to protect (through mitigation) such values is provided for in FLPMA, Section 102(8). When avoidance is not possible, appropriate mitigation may include excavation (data recovery), stabilization, monitoring, protection barriers and signs, or other physical and administrative protection measures.

4. Special Resource Mitigation Guideline

To protect (*resource value*), activities or surface use will not be allowed (i.e., *within a specific distance of the resource value or between date-to-date*) in (*legal subdivision*).

This limitation may or may not apply to extended long-term operation and maintenance of a developed project, pending environmental analysis of any operational or production aspects.

Modifications to this limitation in any year may be approved in writing by the Authorized Officer.

Example Resource Categories (Select or identify category and specific resource value):

a. Recreation areas.

b. Special natural history or paleontological features.

c. Special management areas.

d. Sections of major rivers.

e. Prior existing rights-of-way.

f. Occupied dwellings.

g. Other (specify).

Guidance

The **special resource mitigation guideline** is intended for use only in site-specific situations where one of the first three general mitigation guidelines will not adequately address the concern. The resource value, location, and specific restriction must be clearly identified. A detailed plan addressing specific mitigation and special restrictions on development will be required prior to development and will become a condition for approval of the permit, plan of development, or other use authorization.

Waiver or modification of requirements developed from this guideline must be based upon environmental analysis of proposals such as plans of development, plans of operation, or Applications for Permit to Drill and, if necessary, must allow for other mitigation to be applied on a site-specific basis.

5. No Surface Occupancy Guideline

No surface occupancy will be allowed on the following described lands (*legal subdivision/area*) because of (*resource value*).

Example Resource Categories (Select or identify category and specific resource values):

a. Recreation areas (e.g., campgrounds, historic trails, national monuments).

b. Major reservoirs/dams.

c. Special management areas (e.g., ACEC, known threatened and endangered species habitat, wild and scenic rivers).

d. Other (specify).

Guidance

The **no surface occupancy (NSO) mitigation guideline** is intended for use only when other mitigation is determined insufficient to protect the public interest adequately, and it is the only alternative to "no development" or "no leasing." The legal subdivision and resource value of concern must be identified and be tied to an NSO land use planning decision.

Waiver of or exception(s) to the NSO requirement will be subject to the same test as was used to justify its imposition. If, upon evaluation of a site-specific proposal, it is found that less restrictive mitigation would adequately protect the public interest or value of concern, then a waiver or exception to the NSO requirement is possible. The record must show that because conditions or uses have changed, less restrictive requirements will protect the public interest. An environmental analysis must be conducted and documented (EA or EIS, as necessary) in order to provide the basis for a waiver or exception to an NSO planning decision. If the waiver or exception is found to be consistent with the intent of the planning decision, it may be granted. If found inconsistent with the intent of the planning decision, a plan amendment would be required before the waiver or exception could be granted. 0pr18-When the "no development" or "no leasing" option is considered, a rigorous test must be met and fully documented in the record. This test must be based upon stringent standards described in the land use planning document. Since rejection of all development rights is more severe than the most restrictive mitigation requirement, the record must show that consideration was given to development subject to reasonable mitigation, including no surface occupancy. The record must also show that other mitigation was determined to be insufficient to protect the public interest adequately. A "no development" or "no leasing" decision should not be made solely because it appears that conventional methods of development would be unfeasible, especially where an NSO restriction may be acceptable to a potential permittee. In such cases, the potential permittee should have the opportunity to decide whether or not to go ahead with the proposal (or accept the use authorization), recognizing that an NSO restriction is involved.

APPENDIX E SUPPLEMENT

POSSIBLE LANDOWNERSHIP ADJUSTMENTS

LANDS POSSIBLY SUITABLE FOR DISPOSAL

As in the draft RMP/EIS, the lands identified below by tract may be suitable for disposal under section 203 or 206 of FLPMA. These lands potentially meet criteria 1 and/or 3 of section 203 because they are difficult and uneconomical to manage or because they have the potential to meet important public objectives (such as community expansion or economic development) after disposal.

[An asterisk (*) indicates that the lands described are now segregated against disposal (7,155.16 acres). Before these lands could be disposed of, the withdrawal or classification would need to be removed.]

Sixth Principal Meridian

T. 50 N., R. 102 W.,
sec. 15, lot 1 (11.49).

T. 51 N., R. 98 W.,
sec. 14, NW¼SE¼
sec. 29, lots 4 (20.28), 5 (12.35), 11 (17.05), 13 (31.95), 18 (24.12), 29 (29.06), 30 (3.21), SE¼NE¼, NW¼SW¼;
sec. 31, lots 25, 26 (20.81);
sec. 32, lots 29, 30 (18.31)
tracts 86A, B (80.37);
tracts 87A, B (80.68);
tracts 90A, B, C (117.88).

T. 51 N., R. 103 W.,
sec. 14, lot 6 (28.56), SW¼SW¼;
sec. 15, lot 5 (19.66), SE¼SW¼, SE¼;
sec. 21, lots 1 (25.01), 2 (54.68), 3 (54.67), 4 (42.80), N½, N¼SW¼, SE¼;
sec. 23, SW¼;
sec. 33, lot 2 (11.77);
sec 35, lot 12 (13.35).

T. 51 N., R. 104 W.,
sec 1, lot 19 (2.50)
sec. 28, NW¼NE¼, NE¼NW¼;
sec 34, lots 2 (0.56), 3 (0.42), 6 (0.01);
sec 35, lots 6 (0.58), 7 (0.62);
tract 40 (15.06);
tract 76 (41.83).

T. 52 N., R. 93 W.,
sec 3, SE¼SE¼;
sec 4, SE¼SE¼;
sec 10, N½.

T. 52 N., R. 94 W.,
lots 47B (40.97), C (40.95), D (40.94), E (40.95), F (40.96), 49A (40.36).

T. 52 N., R. 95 W.,
sec 15, lot 43P (44.62).

T. 52 N., R. 101 W.,
sec 1, lot 1, (52.36);
sec 7, lot 1 (31.98);
sec 8, lots 3 (49.46), 4 (32.43), 5 (36.58), N½NW¼SW¼, N½SE¼SW¼;
sec 11, lots 1 (19.80), 2 (26.66), 3 (36.54), 4 (29.36), 5 (29.37), 6 (19.32);
sec 12, lots 1 (27.77), 2 (37.06), 3 (30.32), 4 (29.83), E½NE¼, S½;
*tract 55J (39.91).

T. 53 N., R. 101 W.,
*sec 21, lot 3 (7.05).

T. 54 N., R. 101 W.,
sec 3, FmUA (17.50)

T. 54 N., R. 102 W.,
sec 9, lot 1 (23.11);
sec 12, N½NE¼.

T. 56 N., R. 94 W.,
sec 18, lot 55B (29.61);
sec. 19, lot 4 (43.84), lot 55E (29.35).
tract 65B (30.64).

T. 56 N., R. 95 W.,
sec 12, lot 1 (51.50);
sec 24, lots 55C (9.62), D (9.75);
tract 65A (7.68).

T. 57 N., R. 101 W.,
sec 3, S½NE¼, NE¼SW¼;
sec 6, NE¼SE¼.

T. 57 N., R. 102 W.,
sec 20, N½NW¼;
sec 22, NE¼SW¼;
*sec 24, SE¼NW¼.

T. 57 N., R. 103 W.,
sec 12, E½NE¼, NW¼NE¼, NE¼ SE¼.

T. 58 N., R. 95 W.,
sec 29, SW¼NE¼;
sec 33, NE¼NW¼, NE¼NW¼.

APPENDIX G

LIVESTOCK GRAZING MANAGEMENT

VEGETATION INVENTORY METHODS AND HISTORY IN THE PLANNING AREA

Background

In December 1982, the BLM adopted as its principal rangeland inventory method the Range Site Inventory procedure described in the *National Range Handbook*. This procedure involves the correlation of a soil series to a specific range site. A range site is a distinctive kind of rangeland that differs from other types of rangeland in its ability to produce a characteristic natural plant community. The species composition and total production levels vary between range sites, providing different potentials, objectives, and stocking capabilities for each specific plant community.

Inventories in the Planning Area

The Cody range staff conducted a vegetative inventory to meet the requirements addressed in the Federal Land Policy and Management Act of 1976 and the Public Rangelands Improvement Act of 1978 during 1984 through 1986. The method involved the ocular estimation of plant species composition, production, and plant cover for each delineated site. The seral stage (ecological condition) of each range site was then recorded, or if more than one stage existed within a given range site, that site was listed under two or more seral stages.

Ecological condition classes were determined by comparing the present plant community with that of the climax plant community or potential as indicated by the Soil Conservation Service (SCS) range condition guide for the site. Four classes are used to express the degree that a present plant community reflects its potential climax community: for example, if the seral stage or ecological status represents 76% to 100% of the climax plant community, it is rated excellent; 51% to 75% (late seral), good; 26% to 50% (mid-seral), fair; or 0% to 25% (early seral), poor.

The SCS range site guides used in the Cody Planning Area did not accurately reflect the true production capabilities of the inventoried plant communities in some cases. For example, some range sites in the planning area that would be in good condition because of plant species composition alone did not have a sufficient level of vegetative production to correspond to a good condition rating as suggested in the range site guides. Therefore, the ecological condition classes shown in table G-2 and in chapter 4 may not convey the true condition of the rangeland in the planning area without further analysis. However, ecological condition as displayed represents a baseline or starting point for establishing management objectives for future range condition, for providing reasible stocking level proposals, and for measuring range improvement over time.

The ecological condition classes assigned to each range site were further adjusted, if necessary, on the basis of current production levels obtained in the specific geographical area around Cody. A condition rating based on the percentage of composition alone may need adjustment if the total production is less than that characteristic for the condition class. This concept is in accordance with the National Range Handbook (305.5(a)) for the determination of range condition classes. Annual climatic data was also considered before a condition class was adjusted because of lower production levels.

The final condition classes by range site were associated with a proposed stocking level, as suggested by the Soil Conservation Service in its range site descriptions. This information was used to establish proposed stocking rates for the preferred alternative in conjunction with management objectives specific to each allotment. However, since no one-time inventory can accurately and consistently determine livestock grazing capacity and many variables are associated with each site (climatic fluctuations, seasons of use, and distribution), preference would be allowed until data can be obtained through a three- to five-year monitoring program.

Time and funding constraints prevented a complete inventory of the Cody planning area. However, approximately 814,423 acres have been mapped by range site. This represents 75% of the total planning area. The remaining acres are to be mapped as time and personnel become available. The inventory effort was concentrated on allotments that had been tentatively placed in "I" category because of existing management, vegetative condition or resource conflicts (allotment categorization is described in the next section of this appendix).

Concerns expressed by other resource specialists provided the basis for assigning priority to areas requiring vegetative information for the determination of actual resource conflicts. As a result of this interdisciplinary approach in tentative categorization of the allotments, the range staff was able to obtain vegetative information on all the final "I" category allotments and a large portion of the "M" and "C" allotments within the planning area.

THE ALLOTMENT CATEGORIZATION PROCESS

Assignment of Category

The criteria used for the placement of the allotments into the categories were based on resource potential, resource use conflicts or controversy, opportunity for positive economic return on public investments, and the present management situation. The specific criteria used for each category are as follows:

Category "M": Maintain Existing Resource Conditions

The present range condition and management are satisfactory

Good to excellent condition and will be maintained under present management, or

Fair condition and improving with improvement expected to continue under present management.

Allotment has a potential for moderate or high vegetative production and is producing at or near this potential.

There are no significant land-use resource conflicts with livestock grazing.

Landownership status may or may not limit management opportunities.

Opportunities for positive economic return from public investment may exist. Even though percentage of public land is low or acreage of public land is small, opportunity for positive economic return may still exist.

Category "I": Improve Existing Resource Conditions

Present range condition is unsatisfactory.

Range condition is poor to fair.

Range condition is fair to good.

Range condition is expected to decline further.

Present grazing management is not adequate.

Allotment has potential for medium to high vegetative production but production is low to moderate.

Resource conflicts/controversy with livestock grazing are evident.

There is potential for positive economic return on public investment.

Category "C": Custodial Management

Present range condition is not in a downward trend.

Allotment has a low vegetative production potential and is producing near this level.

There may or may not be limited conflicts between livestock grazing and other resources.

Present management is satisfactory or is the only logical management under existing conditions.

Opportunities for positive economic return on public investments do not exist.

Management Objectives

"M" Allotments

To authorize actions that are consistent with or will maintain current uses and satisfactory range condition and productivity. Monitoring studies will be established at a level that will detect changes in present resource management and/or condition. The intensity and workload requirements of the studies will depend on the resource values involved.

"I" Allotments

To implement management actions that will improve existing resource condition and productivity and enhance overall multiple use opportunities. Monitoring will be carried out at an intensity sufficient to support actions taken toward achieving management objectives and will be implemented on a priority basis. Monitoring will continue at a lower intensity to ensure the effectiveness of the actions.

"C" Allotments

To manage the allotment in a custodial manner while protecting the existing resource values. Management actions will emphasize the issuance of billings, grazing leases, and transfers. Monitoring will consist of periodic allotment inspections and use supervision to detect possible changes in existing resource values. A specific schedule for monitoring will not be developed, but monitoring will be conducted as the opportunity arises in conjunction with other range management work.

CURRENT GRAZING ALLOTMENT INFORMATION

Table G-1 lists livestock grazing information specific to each allotment in the planning area.

Table G-2 shows the range condition for each inventoried allotment. About 75% of the planning area was included in the ecological condition class inventory. Because the inventory focused on "I" category allotments and areas of perceived vegetation conflicts, ecological condition for the planning area as a whole may be somewhat better than conditions shown by the inventory. Ecological condition could also be subject to modification based on further analysis of SCS range guidelines in the Bighorn Basin as described previously in this appendix.

PROBLEMS, CONFLICTS AND OPPORTUNITIES IN GRAZING MANAGEMENT

Identification of Problems

Through consultation with grazing permittees and lessees during the categorization process and by analysis of baseline vegetation inventory data, BLM personnel have identified problems associated with livestock grazing in the planning area. Opportunities are available for resolution of livestock grazing problems and conflicts.

"I" category allotments generally show the greatest need for development and present the greatest opportunities to resolve both management problems and individual concerns. Problems associated with "I" category allotments are listed, and possible management opportunities or actions to resolve them are discussed. "C" and "M" category allotments are not discussed, because no conflicts have been identified or because intensive management is not warranted for a variety of reasons.

Adjustments would not be made until monitoring verified the conflict and determined its extent. Data gathered by monitoring and through additional consultation and coordination with affected parties would support management decisions related to livestock and wildlife stocking levels and other adjustments.

Problems, Conflicts and Opportunities in the Planning Area

Problems in grazing management in the planning area are identified in table G-3, which also indicates possible solutions.

TABLE G-1

LIVESTOCK GRAZING ALLOTMENT INFORMATION

Allotment Number	Allotment Name[1]	Management Category	Total Federal Acres	Forage Condition (acreage)			Season of Use[2]	Grazing Preference by Livestock Class (in AUMs)			Grazing Preference (AUMs)	Held in Suspension (AUMs)
				Satisfactory	Unsatisfactory	Undetermined		Cattle	Sheep	Horse		
SECTION 3 PERMITS												
0632	Dick Creek	M	175			175	S,F	25			25	
0666	Reclamation	M	6,640	2,830	3,810		Sp	293	462		755	164
0677	104	M	1,960			1,960	Sp		124		124	51
1001	Table Mountain	C	16,728			16,728	Sp,W		1,044		1,044	
1002	Whistle Creek (WH)	I	25,000	5,844	19,156		Sp,F,W		718		718	
1003	Stateline	M	19,397			19,397	S,F,W		1,143		1,143	
1004	Airport	C	840	41	799		Sp	45			45	
1005	Gravel Crossing	M	2,240			2,240	Sp	137			137	
1006	Sand Draw	I	37,188	16,967	20,221		Sp,F,W	700	1,695		2,395	720
1007	Little Dry Creek	I	50,005	25,336	24,669		Sp,F		3,504		3,504	328
1008	Gyp Creek	M	7,485	805	6,680		Sp	251			251	
1010	Little Mountain	C	389	73	316		S	16			16	
1012	West River	M	6,441	2,929	3,512		Sp,F		472		472	203
1013	Bear Creek	I	20,883	10,711	10,172		Sp,F,W		1,477		1,477	659
1014	Sheep Mountain	I	12,621	1,472	11,149		Sp,F,W		664		664	296
1015	Lower Bear Creek	I	13,701	2,453	11,248		Sp,F,W		1,194		1,194	747
1016	Home Place	C	325	216	109		Sp		21		21	28
1017	Beaver Creek	M	1,682	828	854		Sp,F		128		128	80
1018	Individual	I	6,850	3,412	3,438		Sp,F		395		395	384
1019	North Beaver	C	376	40	336		S		18		18	18
1020	McKinnie Reservoir	C	1,726			1,726	Sp		110		110	246
1023	Crystal Creek	I	15,432	4,786	10,646		Sp,F	889			889	1,516
1024	Many Springs	M	1,331	422	909		F	67			67	108
1025	Mills	I	5,106	1,048	4,058		Sp,F,W	175			175	383
1026	Burnham	M	2,139	1,508	631		Sp,F	190			190	246
1027	Moss Ranch	I	14,272	10,211	4,061		Sp,F	1,467			1,467	4,385
1028	Little Mountain	I	37,110	13,951	23,159		Y	1,905		37	1,942	3,013
1029	Moncur	C	2,360	1,745	615		Sp	129			129	108
1031	Himes Group	I	19,440	5,234	14,206		Sp,F	524			524	1,300
1032	Lovell Group	C	11,018	4,258	6,760		Sp	343			343	1,071
1033	One-forty	M	1,745	225	1,520		S,F	145			145	7
1034	Willow Creek	M	2,136	651	1,485		F	192			192	133
1035	North Shoshone	M	3,760	272	3,488		Sp	145			145	151
1036	North Shoshone	I	14,573	2,338	12,235		F,W	461			461	706
1037	Himes Spence	M	17,280			17,280	F,W	908			908	292
1038	Firing Range	M	7,070	3,414	3,656		Sp,F	308			308	292
1039	Foster Gulch	I	38,874	12,324	26,550		W	2,325			2,325	1,316
1040	Blue Wash	M	2,365	140	2,225		Sp	82			82	3
1041	Sand Hills	I	7,375	1,817	5,558		F,W		531		531	91
1042	Blue Wash	M	3,510	471	3,039		S,F		132		132	19
1043	Sand Hills	M	7,904	1,840	6,064		W	408			408	
1044	Individual	C	1,149			1,149	Sp		66		66	90
1046	Bench Canal	M	739	427	312		Sp	47			47	111
1047	County Line	M	651	644	7		S	41			41	7

TABLE G-1 (Continued)
LIVESTOCK GRAZING ALLOTMENT INFORMATION

Allotment Number	Allotment Name[1]	Management Category	Total Federal Acres	Forage Condition (acreage)			Season of Use[2]	Grazing Preference by Livestock Class (in AUMs)			Grazing Preference (AUMs)	Held in Suspension (AUMs)
				Satisfactory	Unsatisfactory	Undetermined		Cattle	Sheep	Horse		
SECTION 3 PERMITS (Continued)												
1048	Dry Creek	M	720	487	233		Sp,S	64			64	86
1049	Individual	I	1,289	1,027	262		Sp	101			101	237
1050	Lovell Group 5	C	2,338	492	1,846		Sp	156			156	
1051	Greybull Group	M	11,283			11,283	Sp,S	559			559	303
1052	South Lovell Group	M	4,275	1,090	3,185		Sp	279			279	218
1053	Little Sheep Mountain	I	9,293	4,221	5,072		Sp,F	552	201		753	178
1054	Sand Hills	M	6,392	5,369	1,023		Y	562		18	580	
1055	Sidon Canal	M	1,054	858	196		Sp	46			46	105
1056	Kane	M	8,675	4,346	4,329		Sp	181			181	282
1057	Polecat-Frannie	C	1,586			1,586	Sp,S,F	155			155	
1058	Black Draw	C	811	305	506		Sp	39			39	36
1059	Thumper	I	29,639	11,864	17,775		Sp,F,W		2,159		2,159	1,439
1060	East-West (WH)	I	56,849	16,531	40,318		Sp,F,W	909	2,976		3,885	1,431
1061	Individual	C	4,842	1,003	3,839		Sp,S	200			200	
1062	Dry Creek	M	3,974			3,974	S,F		319		319	241
1064	Peaks	I	14,855	4,875	9,980		S,F	657			657	1,343
1065	YU Bench	C	170			170	S,F	13		5	18	
1066	Corbett Dam	M	3,574			3,574	Sp,S,F	300			300	20
1067	Fernandez	M	2,997			2,997	S,F	331			331	
1068	Boundary Well	M	1,060	765	295		F	169			169	91
1069	Peaks	I	10,008	1,976	8,032		F,W	1,539			1,539	358
1072	Sorensen	M	572			572	S,F	71			71	34
1073	Sage Creek Group	I	11,744	7,009	4,735		S,F	1,411			1,411	
1074	Keystone	C	94			94	Sp	27			27	31
1075	Clarksfork	I	11,200	223	10,977		Sp,F,W	1,089			1,089	
1076	Clark	C	548			548	Sp	47			47	
1078	Individual	C	100			100	Sp	8			8	1
1079	River	C	82			82	S	15			15	
1080	Two Dot	I	54,600	4,459	34,913	15,228	Sp,F,W	4,463			4,463	
1081	Individual	C	57			57	Sp	17			17	
1082	Bennett Creek	M	406			406	Sp	33			33	6
1083	Hill	M	548			548	F	225			225	
1084	Three M	C	197	181	16		F,W	11			11	49
1085	Individual	C	10			10	S	10			10	
1086	Schlaf/Common	M	4,775	1,880	2,895		Sp,F		309		309	
1501	Cedar Creek	I	1,800	1,494	306		Sp,F	200			200	226
1505	Clay Pits	I	5,401	816	4,585		Sp		237		237	295
1506	Beaver Creek	I	360		360		Sp		4		4	
1509	Red Canyon	I	5,635	3,873	1,762		Sp	192			192	155
1516	Sunlight	I	4,506	698	3,808		Sp	325			325	
1522	West of Ranch	I	1,190	857	333		F	92			92	95
1528	East Beaver	I	760	220	540		Sp		25		25	11
1529	West Beaver	I	625		625		Sp		21		21	15
1532	Lost	I	5,230	498	4,732		Sp,F,W		482		482	411
1533	Crandall	M	400	94	306		Sp		12		12	

TABLE G-1 (Continued)

LIVESTOCK GRAZING ALLOTMENT INFORMATION

Allotment Number	Allotment Name¹	Management Category	Total Federal Acres	Forage Condition (acreage)			Season of Use²	Grazing Preference by Livestock Class (in AUMs)			Grazing Preference (AUMs)	Held in Suspension (AUMs)
				Satisfactory	Unsatisfactory	Undetermined		Cattle	Sheep	Horse		
SECTION 3 PERMITS (Continued)												
1534	One-Twenty-One	I	3,715	990	2,725		Sp	189			189	187
1538	North Shell Group	C	18,240	1,541	16,699		Sp	1,008		53	1,061	741
1540	One-Eighth Acre	C	1			1	Sp			1	1	
1541	Red	I	720	449	271		Sp	64			64	61
Section 3 Permits subtotal			**759,191**	**222,169**	**435,137**	**101,885**		**28,527**	**20,643**	**114**	**49,284**	**27,958**
SECTION 15 LEASES												
2502	Armstrong	C	361			361	S	42			42	
2504	Carter Mountain	I	5,859		5,859		S		804		804	
2511		M	566			566	F,W	127			127	
2519	Newell Springs	M	1,320			1,320	S,F	156			156	
2523		M	1,191			1,191	W		144		144	
2524	Jack Creek	M	409			409	S	35		5	40	
2528	Mountain Meadows	M	696			696	S	140			140	
2532	Pitchfork	M	6,056			6,056	F,W	1,245			1,245	
2535	Wood River	M	40			40	Sp	8			8	
2544	Tonopah Ridge	M	3,026			3,026	S,F,W	408			408	
2545	91 Rand	M	8,758			8,758	Y	1,632			1,632	
2551		M	3,778			3,778	Sp,S	820			820	
2553	Winniger	M	1,749			1,749	Sp,S,F	317			317	
2561	Little Dry Creek	M	7,754			7,754	Sp,S,F	1,059			1,059	
3001	Bennett Creek	M	3,382			3,382	Sp,S,F	235			235	
3002	Stonewall Creek	M	40			40	S	8			8	
3003	Lower Slope	M	3,426			3,426	Sp,F	308		18	326	
3004	Stonebridge Reservoir	I	4,436	965	3,471		Sp,S,F	579			579	
3005	Natural Corral	C	193			193	S,F	39			39	
3006	Coal Creek	M	2,192			2,192	Sp,S,F	185			185	
3007	Bennett Creek	M	3,921			3,921	Sp,S,F	318		14	332	
3008	Sage Creek Addition	I	140	35	105		S,F	18			18	
3009	Keystone	M	547			547	S	32			32	
3010	Osborne	M	933			933	S	94			94	
3011	Heart Mountain	M	8,131			8,131	Sp,S,F	1,040			1,040	
3012	Question Creek	I	960		960		Sp,S,F	134			134	
3013	Billy Goat	C	260			260	S	20		11	31	
3014	Buchanan	C	278			278	S	13			13	
3015	Dunn Creek	C	25			25	F			3	3	
3017	Eagle Valley	C	40			40	S			4	4	
3018	Ishawooa Station	C	44			44	S	5			5	
3019	TE Ranch	C	148			148	S,F	21			21	
3020	Post Creek	C	453			453	Sp,S	20		23	43	
3021	Spirit Basin	C	480			480	Sp,S	68			68	
3022	Fernandez	M	1,079			1,079	S,F	202			202	
3023	Diamond Creek	M	457			457	S	42			42	
3024	Four Bear	C	609			609	S,F	56			56	

TABLE G-1 (Continued)

LIVESTOCK GRAZING ALLOTMENT INFORMATION

Allotment Number	Allotment Name[1]	Management Category	Total Federal Acres	Forage Condition (acreage)			Season of Use[2]	Grazing Preference by Livestock Class (in AUMs)			Grazing Preference (AUMs)	Held in Suspension (AUMs)
				Satisfactory	Unsatisfactory	Undetermined		Cattle	Sheep	Horse		
SECTION 15 LEASES (Continued)												
3025	Jim Creek	C	833			833	Sp,S			60	60	
3026	Cedar Mountain	C	886			886	Sp,S	37			37	
3027	Bunn	C	968			968	Sp,S	120			120	
3028	Close Pasture	C	1,702			1,702	S	230			230	
3029	Oregon Basin	I	9,483	7,654	1,829		S,F	2,290	199		2,489	
3030	Diamond Basin	C	641			641	Sp,S,F	70			70	
3032	River Pasture	C	274			274	W	15			15	
3033	Hogg	C	760			760	Y	80			80	
3034	Devils Tooth	C	143			143	S,F			14	14	
3035	Eagle Pass	I	25,581	350	25,231		Sp,S,F	2,825			2,825	
3036	Lakeshore	C	863			863	Sp,S,F	16		20	36	
3037	River	C	40			40	S,F	4			4	
3038	New Highway	M	210			210	S,F			35	35	
3040	Lakeview	M	178			178	S	28			28	
3041	Twin Creek	C	154			154	Sp,S,F			13	13	
3042	River Pastures	C	169			169	Sp	35			35	
3043	Diamond Bar Ranch	M	1,563			1,563	Y	198			198	
3044	Sheep Mountain	M	1,464			1,464	S	150			150	
3045	Greenwald	C	427			427	Sp	38			38	
3046	Wall Creek	C	193			193	S	20			20	
3047	Timber Creek	I	730	329	401		S	72			72	
3048	Hoodoo	M	7,007			7,007	Y	591			591	
3049	Haffey Place	C	440			440	S,F	67		3	70	
3050	Bull Creek	C	74			74	S	14			14	
3051	Cottonwood Creek	M	1,301	757	544		Sp	236			236	
3052	Desert	M	31,884			31,884	Sp,F,W	4,038			4,038	
3053	Trail Creek	I	20,228	4,576	15,652		Y	3,248			3,248	
3054	Dorrance	C	110			110	S,F	20			20	
3055	Red Pole	M	1,249			1,249	F,W			44	44	
3056	Upton	C	80			80	Sp	8			8	
3057	Ishawooa	M	23			23	S			2	2	
3058	Rand Creek	M	159			159	S	20			20	
3059	Indian Pass	I	2,252	1,001	1,251		Sp,S	206			206	
3060	Hidden Valley	M	1,743			1,743	S,F	10		140	150	
3062	Upper Sage Pasture	C	333			333	F,W	20			20	
3063	EL	M	80			80	Sp	7			7	
3064	Lower Sage Creek	M	3,755			3,755	F,W,Sp	365			365	
3065	Canyon Entrance	M	141			141	Sp	11			11	
3066	Little Rock Ck.No. 1	M	618			618	S	49			49	
3067	Red Point (WH)	I	13,999	6,629	7,370		Y	903	652		1,555	
3068	Oregon Coulee	I	4,436	2,094	2,342		F,W	851			851	
3069	Lower YU Bench	I	4,350		4,350		S,F	396			396	
3070	Rivers Rest	M	287			287	S,F			43	43	
3071	Wiley Rim	M	1,122			1,122	S,F,W	211			211	
3072	Red Creek	M	298			298	Sp	20			20	

TABLE G-1 (Continued)

LIVESTOCK GRAZING ALLOTMENT INFORMATION

Allotment Number	Allotment Name[1]	Management Category	Total Federal Acres	Forage Condition (acreage)			Season of Use[2]	Grazing Preference by Livestock Class (in AUMs)			Grazing Preference (AUMs)	Held in Suspension (AUMs)
				Satisfactory	Unsatisfactory	Undetermined		Cattle	Sheep	Horse		
SECTION 15 LEASES (Continued)												
3073	Rimrock	M	2,916	2,833	83		Sp,S	605			605	
3074	Alexander	M	372			372	Sp	63			63	
3075	Hardpan Creek	M	197			197	S			30	30	
3076	LL Bar	M	1,034			1,034	S	168			168	
3078	Lake Creek	I	428	398	30		Sp,S,F	40			40	
3079	Red Cabin	M	5,442			5,442	Sp,S,F	864			864	
3080	Sleeper	C	73			73	Y	95			95	
3081	Sorensen	M	429			429	Sp,S,F	60			60	
3082	Castle Rock	M	674			674	S,F			40	40	
3083	Clarksfork Canyon	I	375	138	237		S,F	28		12	40	
3084	Big Dipper	M	1,709			1,709	Sp,S	65		44	109	
3085	Sulphur Creek	C	48			48	Sp			8	8	
3086	Two Dot	M	25,430			25,430	Sp	2,696			2,696	
3087	State	M	4,023			4,023	Y	145		84	229	
3088	Reclamation (WH)	M	2,696	1,550	1,146		Sp		275		275	
3089	Newmeyer Creek	M	1,219			1,219	S,F,W			89	89	
3090	Palette	C	1,377			1,377	S,F	344			344	
3091	YU Bench	I	21,883	17,579	4,304		Y	2,283		14	2,297	
3092	Peterson	M	282			282	Sp	26			26	
3093	Mountain Slope	M	1,730			1,730	S,F	215			215	
3094	Dry Creek	M	2,389			2,389	F		300		300	
3095	Marlow Basin	M	732			732	Sp,S,F	177			177	
3096	Meeteetse Rim	M	500			500	Sp,S,F	83			83	
3097	Isolated 40	M	40			40	W	4			4	
3098	Headquarters Pasture	C	22			22	W	3			3	
3099	Ridge Pasture	C	135			135	S	19			19	
3100	Big Bend Pasture	C	462			462	S	65			65	
3101	Meadow	C	56			56	F	8			8	
3102	Bench	I	9,395	1,586	7,809		Sp,S,F	1,182			1,182	
3104	Lone Tree	I	1,615		1,615		S	259			259	
3105	Pasture No. 4	C	17			17	F	2			2	
3106	Trout Creek	M	2,141			2,141	S,F,W	120		14	134	
3107	Highway Trans	M	843			843	Sp,S,F	77			77	
3108	Rattlesnake	M	2,506			2,506	Sp,S	209			209	
3109	Southfork	C	16			16	S			1	1	
3110	Boundary Well	M	542	409	133		F	91			91	
3111	Canyon Pasture	M	3,058			3,058	W	254			254	
3112	Stone Barn 15	I	8,284	1,847	6,437		W	1,254			1,254	
Section 15 Leases subtotal			**322,058**	**50,730**	**91,159**	**180,169**		**38,449**	**2,374**	**788**	**41,611**	**0**
TOTAL FOR PLANNING AREA			**1,081,249**	**272,899**	**526,296**	**282,054**		**66,976**	**23,017**	**902**	**90,895**	**27,958**

[1] (WH) by an allotment name indicates that the allotment is inside a wild horse range. Allotments 2511, 2523, and 2551 are not named.

[2] The following are abbreviations for season of use: Sp = spring grazing, S = summer grazing, F = fall grazing, W = winter grazing, and Y = grazing allowed in any season.

TABLE G-2

SUMMARY OF RANGE CONDITION BY ALLOTMENT[1]

Allotment Number	Range Condition as Percentage of Allotment				
	Poor	Fair	Good	Excellent	Unconditioned[2]
0666	41	37	17	0	5
1002	38	22	1	0	39
1004	94	5	0	0	1
1006	45	34	11	less than 1	10
1007	36	31	20	1	12
1008	58	15	2	2	23
1010	10	2	7	10	71
1012	37	15	34	0	14
1013	40	25	19	8	8
1014	59	4	7	1	29
1015	59	20	6	1	14
1016	25	0	38	28	9
1017	31	11	34	6	18
1018	33	20	23	10	14
1019	77	8	1	0	14
1023	45	13	19	less than 1	23
1024	63	5	26	0	6
1025	78	14	6	0	2
1026	23	42	25	2	8
1027	14	22	51	8	5
1028	22	35	15	10	18
1029	6	18	15	41	20
1031	47	22	8	0	23
1032	43	17	13	6	21
1033	73	14	7	6	less than 1
1034	63	0	2	0	35
1035	65	11	less than 1	0	24
1036	60	14	2	less than 1	24
1037	36	11	14	less than 1	39
1038	40	20	30	less than 1	10
1039	56	19	9	5	11
1040	71	8	0	0	21
1041	62	7	20	1	10
1042	46	26	3	0	25
1043	42	13	16	4	25
1046	0	94	6	0	0
1047	0	48	42	9	1
1048	0	32	68	0	0
1049	0	96	3	0	1
1050	52	19	8	4	17
1052	47	23	15	0	15
1053	38	48	3	0	11
1054	less than 1	21	54	17	8
1055	0	6	15	65	14
1056	38	22	10	13	17
1058	40	41	17	0	2
1059	42	35	6	1	16
1060	44	28	2	less than 1	25
1061	14	45	8	0	33
1064	20	28	5	0	47
1068	19	31	41	0	9
1069	69	12	12	0	7
1073	19	47	13	0	21
1075	90	5	0	0	5

TABLE G-2 (Continued)

SUMMARY OF RANGE CONDITION BY ALLOTMENT[1]

Allotment Number	Range Condition as Percentage of Allotment				
	Poor	Fair	Good	Excellent	Unconditioned[2]
1080[3]	47	8	2	2	41
1084	0	8	92	0	less than 1
1086	4	60	35	1	less than 1
1501	17	26	26	31	less than 1
1505	64	17	less than 1	0	19
1506	77	0	0	0	23
1509	28	33	29	7	3
1516	83	14	1	0	2
1522	28	33	18	21	less than 1
1528	68	29	0	0	3
1529	39	less than 1	0	0	61
1532	66	8	3	0	23
1533	51	41	5	0	3
1534	73	9	17	1	0
1538	52	13	2	0	33
1541	38	12	48	2	0
2504	0	47	44	0	9
3004	74	15	6	1	4
3008[4]	70	25	0	0	5
3012	100	0	0	0	less than 1
3029	16	64	17	less than 1	3
3035	95	1	1	0	3
3047	17	45	0	0	38
3051	38	58	0	0	4
3053	61	15	7	0	17
3059	39	33	16	0	12
3067	49	26	2	19	4
3068	35	45	2	0	18
3069	89	0	0	0	11
3073	0	0	97	0	3
3078	0	22	71	0	7
3083	5	52	37	0	6
3088	24	57	11	0	8
3091	16	46	32	2	4
3102	78	6	0	10	6
3104	99	0	0	0	1
3110	23	59	16	0	2
3112	72	3	21	0	4
	Planning area total inventoried (acreage)				
	371,477	**187,235**	**92,486**	**22,064**	**141,161**
Total 814,423					

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[1] Includes allotments for which ecological site inventory has been conducted.

[2] Applies to areas unsuitable for livestock grazing such as rock outcrop, woodlands, and disturbed areas (for example, mines).

[3] Includes 15,228 acres not inventoried in time for this analysis; this acreage is presently displayed in the "unconditioned" column.

[4] Small allotment (140 acres) encompassed by a large colony of black-tailed prairie dogs.

TABLE G-3

PROBLEMS, CONFLICTS AND OPPORTUNITIES IN LIVESTOCK GRAZING MANAGEMENT

Types of problems and conflicts that can occur in livestock grazing management are listed in Part One of this table by number. Management opportunities for actions to improve management and resolve conflicts also are listed by number.

Part Two of this table is an allotment-specific listing of livestock grazing problems and conflicts in the planning area and the management opportunities to alleviate those conflicts in each allotment.

Part One

Types of Problems and Conflicts	Management Opportunities
1. Existing water sources are insufficient to allow uniform distribution in the allotment as a whole or are unreliable. Some areas are being overutilized near existing water; other portions of the allotment are not providing the number of AUMs authorized.	1. Improve livestock distribution by developing additional water projects and/or salting. Implement grazing management systems that would alter traditional grazing patterns. Adjust the existing stocking levels to reflect actual production levels and accessible units. On the basis of season of use and vegetative types, specify the appropriate class or or kind of livestock that will best utilize the allotment.
2. The boundary of the allotment is not fenced or secured by natural boundaries that will control authorized livestock. Livestock occasionally drift into or out of the authorized allotment, resulting in trespass situations.	2. Control livestock use by constructing boundary fences or additional cross-fences.
3. Certain portions of the riparian habitat in one or more of the following areas are in an unsatisfactory condition: Riparian Zones in "I" Category Allotments a. Bear Creek b. Big Sand Coulee c. Cedar Creek d. Cottonwood Creek e. Crystal Creek f. Deer Creek g. Dry Creek h. Little Sand Coulee i. Horse Creek j. Slack Creek k. Little Rose l. Oregon Coulee m. Post Creek n. Rawhide Creek o. Rose Creek p. South ForK Dry Creek q. Sulphur Creek r. Sunlight Gulch	3. Improve riparian habitat conditions by installing protective fencing, developing range improvement projects to provide off-site waters, developing special use pastures, changing season of use or class of livestock, improving water distribution and quality, improving upland forage, implementing intensive rotational grazing, or increasing livestock herding.
4. Existing preference exceeds the current production capabilities of the vegetation communities involved.	4. Monitor actual livestock utilization in relation to actual numbers to determine proper carrying carrying capacity.

TABLE G-3 (Continued)

PROBLEMS, CONFLICTS AND OPPORTUNITIES IN LIVESTOCK GRAZING MANAGEMENT

Part One (Continued)

Types of Problems and Conflicts	Management Opportunities
5. Occupation of this allotment by wildlife during traditional livestock grazing periods has resulted in dietary overlaps and forage competition in one or more of the following: a. Pronghorn b. Mule deer c. Elk d. Bighorn sheep e. Moose f. Spring, summer conflict g. Winter, fall conflict h. Insufficient grasses i. Insufficient forbs j. Insufficient shrubs	5. Monitor actual numbers of both livestock and wildlife during critical periods to determine appropriate or acceptable levels. Actions may then be necessary to redistribute large concentrations of animals.
6. The existing AMP is no longer meeting the management objectives set forth for this allotment.	6. Revise existing AMP to meet the operator's needs to develop a system that will enhance livestock grazing use and other resource values.
7. Certain portions of this allotment have excessive sagebrush canopy, which reduces the amount of desirable forage available for both wildlife and livestock.	7. Improve forage quality through the implementation of various vegetative manipulations such as prescribed burning or ripping and reseeding (vegetative manipulations are described in this appendix).
8. Excessive soil erosion is occurring on certain portions of the allotment because of a lack of vegetative cover.	8. Improve soil stability on highly erosive soils by constructing improvement projects designed to provide watershed stability.
9. Continuous early spring grazing is resulting in stress to desirable forage species that require rest or regrowth opportunities during this critical growing period.	9. Limit the number of livestock on the allotment during the critical spring season to a level that will provide appropriate utilization objectives. These objectives will be developed in consultation and coordination with the affected permittee to meet the needs of both the operator and the affected resource.
10. Trailing requirements through this allotment have resulted in overutilization of route areas and the mixing of existing livestock.	10. Trailing will be authorized on existing stock trails consistent with the overall objectives set forth for the allotments affected.
11. Plant and animal pests have posed a problem to the livestock and vegetative productivity of the allotment.	11. Act in cooperation with other affected landowners and agencies to control concentrations of noxious weeds or pests.
12. Recreational activities by the public are resulting in gates being left open. This causes livestock to drift in and out of authorized areas.	12. Install cattle guards in various trouble locations to minimize the probability of livestock drifting.
13. Some of the vegetative sites in the allotment are producing well below the potential in both quality and quantity levels. Changes in grazing management alone will not constitute a response.	13. Restore productivity of these sites through the implementation of various mechanical treatments.

TABLE G-3 (Continued)

PROBLEMS, CONFLICTS AND OPPORTUNITIES IN LIVESTOCK GRAZING MANAGEMENT

Part One (Continued)

Types of Problems and Conflicts	Management Opportunities
14. The placement of supplemental feed on and around public lands has resulted in locally depleted range conditions.	14. Through consultation, and coordination with the affected permittee, develop a system of rotating the feed locations throughout the allotment. Options also may exist to place the required supplement material on private lands within the allotment, if fenced.
15. There is stress on the available vegetative resources of the area from the present wild horse population and the existing livestock grazing preference.	15. Monitor forage utilization by both wild horses and livestock to determine acceptable levels of both species. Supplement data with aerial reconnaissance of the wild horse herd areas to develop distribution patterns of the wild horse population.
16. Bentonite exploration and mining is resulting in conflicts with existing livestock grazing.	16. In coordination with the Wyoming DEQ increase abandonment compliance requirements to ensure that adequate reclamation is accomplished. Adjust livestock numbers to reflect available forage after mining claim abandonment.
17. Periodic ORV use within the allotment is resulting in accelerated erosion on areas with fragile soils.	17. Restrict ORV use to existing roads and trails in the affected areas.

Part Two

Allotment Number	Resource Conflict/Problem	Management Opportunities
1002	1,2,5a,5f,5i,13,15	1,5,7,15
1006	4,5a,5b,5f,5i,8	4,5,8
1007	4,8,13	4,8,13
1013	3a,3e,5c,5g,5i	3,5
1014	1,3a,4,5b,5g,5i,13	1,3,4,5,13
1015	3a,4,5a,5b,5f,5g,5h,5i,16	3,4,5,16
1018	1,5c,5b,5g,5i,11-coyote	1,5,11
1023	2,3e,4,5a,5b,5c,5g,5h,13	2,3,4,5,13
1027	5b,5c,5d,5g,5h	5
1028	2,3d	2,3
1031	3e	3
1036	1,2,16	1,2,16
1039	2,4,5a,5b,5g,5h,5i	2,4,5
1041	8	8
1049	5a,5b,5f,5h,5i,5b,5g,5h,5i,7,9	5,7,9
1053	8	8
1059	1,3g,4,5a,5b,5f,5g,5h,5i,5j	1,3,4,5
1060	2,3g,4,5a,5b,5f,5g,5h,5i,9,11-coyote,12	2,3,4,5,9,11,12
1064	3f,4	3,4
1069	4,14	4,14
1073	4,6,11-prairie dogs	4,6,11
1075	3b,4,5a,5b,5f,5g,5h,5i,9	3,4,5,9
1079	13	4
1080	3h,5a,5b,5f,5g,5h,5i,5j,6,8	3,5,6,8
1505	4,5b,5f,5g,5h,5i,16	4,5,16

TABLE G-3 (Continued)

PROBLEMS, CONFLICTS AND OPPORTUNITIES IN LIVESTOCK GRAZING MANAGEMENT

Part Two (Continued)

Allotment Number	Resource Conflict/Problem	Management Opportunities
1506	5b,5g,5h,5i	5
1509	3c,5b,5c,5g,5h,5i,5j	3,5
1516	3q,4,5b,5f,5h,5i,5b,5c,5g,5h,,5i,8,9	3,4,5,8,9
1522	3h,5b,5g,5h,5i,5j	3,5
1528	5b,5g,5h,5i	5
1529	4,5b,5f,5h,5i,5b,5g,5h,5i,5j	4,5
1534	5b,5c,5g,5h,7,8,9	5,7,8,9
1541	5b,5c,5g,5h,5i,5j	5
2504	3m,3n,3j,5a,5b,5c,5d,5e,5g,5h,5i,17	3,5,17
3004	3l,3i,5a,5b,5c,5d,5g,5h,7	3,5,7
3008	4,5a,5b,5f,5g,5h,5i,5j,11-prairie dogs	4,5,11
3012	4,5a,5b,5f,5g,5h,5i,10	4,5,10
3029	3o,4,5a,5b,5g,5h,5i,5j,5a,5b,5f,5h,5i,7,12	3,4,5,7,12
3035	1,3k,3o,4,5a,5b,5f,5h,5i,5a,5b,5g,5h,5i, 5j,8,13	1,3,4,5,8,13
3047	5a,5d,5f,5h,5a,5b,5c,5g,5h,5j	5
3051	3d,4	3d,4
3053	4,5a,5b,5c,5d,5e,5f,5h,5b,5c,5d,5e, 5g,5h,5i,5j,6,7,12	4,5,6,7,12
3059	3p,4,5b,5f,5g,5h,5i,16	3,4,5,16
3067	3g,4,5a,5b,5f,5g,5i,9,11-coyote,12,15	3,4,5,9,11,12,15
3068	3k,3g,4,5a,5b,5g,5h,5i,5j,8,12	3,4,5,8,12
3069	4,5a,5b,5f,5g,5h,5i,5j,7,12	4,5,7,12
3091	3o,4,5a,5b,5f,5g,5h,5i,10,12	3,4,5,10,12
3102	3g,4,5a,5b,5f,5g,5h,5i,7,9,10	3,4,5,7,9,10
3104	1,4,5a,5b,5f,5h,5i,5a,5b,5g,5h,5i,5j,8	1,4,5,8
3112	4,5a,5b,5g,5h,5i,8	4,5,8

PROPOSALS FOR LIVESTOCK GRAZING MANAGEMENT BY ALTERNATIVE

Table G-4 lists allotment-specific proposals for range methods and treatments under each alternative.

Table G-5 shows the proposed stocking level for each allotment under each alternative.

PROCEDURES FOR RANGE IMPROVEMENT PROJECTS

Procedures and Regulations

The following is a discussion on the standard operating procedures and regulations that govern the development of range improvement projects in the planning area. A number of specific design features not mentioned here also may be incorporated in the construction of such projects; for example, a requirement for a specific color of fence post to minimize the impacts associated with visual quality. These types of mitigative specifications will be incorporated individually into a required environmental assessment.

The following procedures would be followed in the construction of all management facilities and the implementation of vegetative manipulations.

> To ensure the protection of other resources that could be adversely affected, an environmental assessment would be required before the development and/or approval of any range improvement project proposed on public lands .
>
> All range improvement projects involving surface-disturbing activities would be inventoried for prehistoric and historic features to comply with the National Historic Preservation Act of 1966, 36 CFR 800, and Executive Order 11593. All sites found during such inventories would be protected, where feasible. If buried sites were discovered during construction, operations would cease until such time as BLM could evaluate the discovery and determine the appropriate actions.
>
> The construction or development of a range improvement project would be denied if the proposal would affect or jeopardize the continued existence of federally listed threatened or endangered plant or animal species and/or its habitat. Consultation and coordination with the USFWS would be required under such conditions to determine acceptable mitigating measures to avoid possible impacts.
>
> The development of new range improvement projects or the maintenance of existing facilities within wilderness study areas would follow the guidelines set forth in the BLM's *Interim Management Policy and Guidelines for Land Under Wilderness Review* (USDI, BLM 1979, 1983).
>
> Specific schedules would be set for the construction of projects in critical wildlife areas such as winter ranges, fawning/calving areas, or strutting grounds to avoid possible stress of the species involved.
>
> All actions would address the BLM's visual resource management criteria in the project planning stages for activities that would affect the existing landscape, disturb the soils, or remove vegetation. This type of analysis would determine the amount of contrast that would exist between the proposal and the landscape so that actions required to reduce the visual impacts could be determined.
>
> Cooperative agreements or range improvement permits would be required on all projects constructed on public lands so that maintenance responsibilities for those projects could be assigned.
>
> Benefit/cost analysis would be conducted on all projects before approval to determine if there would be a positive economic return on investment.

Structural Projects

Fences

Fencing is one of many ways of controlling wild and domestic animals to achieve resource management objectives within specific areas. It is commonly used on range and forested lands to control domestic livestock, to exclude certain livestock and wildlife species from hazard, study, or regeneration areas, and to gain uniform distribution of livestock for proper utilization of the range or for protection of human and cultural values. Fencing also has been used in the past for the protection of riparian zones for restoration purposes.

TABLE G-4

PROPOSED RANGE METHODS AND TREATMENTS BY ALLOTMENT

Allotment Number	Grazing Systems		Vegetation Manipulations						Structural Projects					
										Fencing				
	Spring Defer	Rest-Rotate	Burn	Burn & Reseed	Chemical	Inter-seed	Rip & seed	Contour Furrow	Reservoirs	Division	Boundary	Springs	Pipelines	Wells
ALTERNATIVE A														

BLM funded projects would be limited to areas covered by an existing AMP.

1002 Approximately 2.5 miles of boundary fence would be constructed on the north end of the allotment.

1060 Approximately 3 miles of boundary fence would be constructed on the north end of the allotment.

1067 No projects would be proposed.

1073 Rest-rotation grazing systems would be implemented to provide rest during critical growing seasons.

1080 Approximately 1,989 acres of saline upland vegetation would be ripped and seeded. Contour furrowing would be done on about 540 acres.

3035 Approximately 3.5 miles of pipeline would be constructed for water distribution.

3052 No projects would be proposed.

3053 About 765 acres of sagebrush would be burned.

Allotment Number	Spring Defer	Rest-Rotate	Burn	Burn & Reseed	Chemical	Inter-seed	Rip & seed	Contour Furrow	Reservoirs	Division	Boundary	Springs	Pipelines	Wells
ALTERNATIVE B														
1002					X		X	X	X		X			
1006					X	X		X						X
1007					X			X	X					
1013			X		X			X					X	X
1014								X	X					
1015			X											X
1018			X	X					X					
1023						X		X		X	X		X	X
1027			X		X									
1028			X		X							X	X	
1031								X	X					
1036								X	X	X				
1039			X					X						
1041								X	X					
1049	X		X											
1053	X		X		X				X					
1059					X			X	X					
1060	X		X		X			X	X	X				
1064					X		X							
1069					X			X						
1073		X												
1075	X				X		X	X						
1080					X	X	X	X					X	X
1505					X			X						
1506								X						
1509			X		X			X	X					
1516	X		X	X	X				X					
1522					X			X	X					
1528			X		X			X						
1529		X												
1534	X		X	X	X									

TABLE G-4 (Continued)

PROPOSED RANGE METHODS AND TREATMENTS BY ALLOTMENT

	Grazing Systems		Vegetation Manipulations						Structural Projects					
										Fencing				
Allotment Number	Spring Defer	Rest-Rotate	Burn	Burn & Reseed	Chemical	Inter-seed	Rip & seed	Contour Furrow	Reservoirs	Division	Boundary	Springs	Pipelines	Wells
ALTERNATIVE B (Continued)														
2504												X	X	
3004					X				X					
3008					X									
3012						X			X					
3029			X		X				X					
3035		X				X	X	X					X	
3047			X		X									
3053			X		X									
3059			X			X		X						
3067	X		X		X		X	X	X					
3068					X		X	X	X					
3069			X			X	X							
3091			X		X		X	X					X	X
3102	X				X		X	X	X					
3104						X	X		X					
3112					X		X	X					X	
Total acreage Alternative B	8	3	19,334	1,078	40,482	7,854	24,224	101,540	20	3	2	2	8	6
ALTERNATIVE C														
1002						X			X					
1006						X								X
1007									X					
1013			X										X	X
1014									X					
1015			X											X
1018			X						X					
1023						X				X	X		X	X
1027			X											
1028			X									X	X	
1031			X						X					
1036									X	X				
1039			X											
1041						X			X					
1049	X		X											
1053	X		X						X					
1059									X					
1060	X		X						X	X				
1064														
1069														
1073		X												
1075	X													
1080						X						X	X	
1505														
1506														
1509			X						X					

TABLE G-4 (Continued)

PROPOSED RANGE METHODS AND TREATMENTS BY ALLOTMENT

	Grazing Systems		Vegetation Manipulations						Structural Projects					
										Fencing				
Allotment Number	Spring Defer	Rest-Rotate	Burn	Burn & Reseed	Chemical	Inter-seed	Rip & seed	Contour Furrow	Reservoirs	Division	Boundary	Springs	Pipelines	Wells
ALTERNATIVE C (Continued)														
1516	X		X						X					
1522									X					
1528			X											
1529		X												
1534	X		X	X										
2504												X	X	
3004									X					
3008														
3012						X			X					
3029			X						X					
3035		X				X						X		
3047														
3053			X											
3059						X								
3067	X		X						X					
3068									X					
3069			X											
3091			X										X	X
3102	X								X					
3104						X			X					
3112													X	
Total acreage Alternative C	8	3	17,039	0	0	5,760	0	0	20	3	1	2	8	6
ALTERNATIVE D														
1002			X						X		X			
1006								X						X
1007								X	X					
1013													X	X
1014									X					
1015			X											
1018									X					
1023											X		X	X
1027									X					
1028		X								X	X	X	X	
1031									X	X				
1036		X							X	X	X			
1039											X			
1041								X						
1049	X		X											
1053								X	X					
1059								X	X					
1060	X								X	X				
1064							X					X		

TABLE G-4 (Continued)

PROPOSED RANGE METHODS AND TREATMENTS BY ALLOTMENT

Allotment Number	Grazing Systems		Vegetation Manipulations						Structural Projects					
										Fencing				
	Spring Defer	Rest-Rotate	Burn	Burn & Reseed	Chemical	Inter-seed	Rip & seed	Contour Furrow	Reservoirs	Division	Boundary	Springs	Pipelines	Wells
ALTERNATIVE D (Continued)														
1069		X												
1073		X												
1075	X						X							
1079											X			
1080							X	X					X	X
1505					X									
1506								X						
1509									X					
1516	X							X	X					
1522									X					
1528					X									
1529		X												
1534	X		X											
1541		X												
2504												X	X	
3004			X						X					
3008					X									
3012									X					
3029			X						X					
3035		X					X						X	X
3047					X									
3053			X											
3059								X						
3067	X													
3068							X		X					
3069			X											
3091							X						X	
3102	X		X				X	X						
3104							X		X					
3112								X					X	
Total acreage Alternative D	7	7	8,488	0	369	0	7,422	10,716	18	4	6	3	8	5

TABLE G-5

PROPOSED STOCKING RATES BY ALTERNATIVE

	Alternative A		Alternative B		Alternative C		Alternative D	(Preferred)
Allotment number	Short-term (AUMS)[1]	Long-term (AUMS)	Short-term (AUMS)[2]	Long-term (AUMS)	Short-term (AUMS)[3]	Long-term (AUMS)	Short-term (AUMS)[4]	Long-term (AUMS)
SECTION 3 PERMITS								
0632	25	25	25	25	25	25	25	25
0666	755	755	552	715	552	715	755	872
0677	25	161	124	124	115	133	124	124
1001	1,044	1,044	1,044	1,044	1,044	1,044	1,044	1,044
1002	683	656	718	822	503	1,028	656-718	907
1003	741	741	1,143	1,143	1,143	1,143	1,143	1,143
1004	45	45	45	45	45	45	45	35
1005	137	137	137	137	137	137	137	137
1006	945	2,074	2,395	2,370	960	1,930	1,578-2,395	1,689
1007	757	3,375	3,504	3,596	2,453	3,105	2,500-3,504	2,640
1008	177	255	251	251	251	251	251	241
1010	16	16	16	16	16	6	16	11
1012	472	472	472	472	472	472	472	472
1013	1,148	1,515	1,477	1,592	1,034	1,516	1,456-1,477	1,456
1014	517	718	664	679	468	763	468-664	468
1015	721	498	1,194	613	307	605	449-1194	479
1016	21	21	21	40	21	21	21	40
1017	73	128	128	147	128	128	128	147
1018	395	494	395	644	310	517	394-395	394
1019	18	18	18	23	18	18	18	23
1020	110	110	110	110	110	110	110	110
1023	571	525	889	994	318	559	619-889	619
1024	67	119	67	119	67	67	67	119
1025	175	229	175	229	175	175	175	229
1026	221	206	190	241	190	190	190	241
1027	1,434	1,931	1,467	2,198	1,027	1,383	1,466-1,467	1,466
1028	1,500	2,243	1,942	2,470	1,942	1,942	1,941-1,942	2,038
1029	129	259	129	259	129	129	129	259
1031	383	763	524	1,001	403	778	524	763
1032	343	359	343	359	343	343	343	359
1033	145	84	145	145	145	145	145	145
1034	192	192	192	192	192	192	192	114
1035	145	145	145	145	145	145	145	98
1036	277	585	461	608	323	547	402-461	422
1037	908	908	908	908	908	908	908	704
1038	154	407	308	486	308	308	308	486
1039	2,251	1,756	2,325	2,666	1,628	2,287	1,809-2,325	1,809
1040	82	82	82	82	82	82	82	68
1041	371	628	531	709	372	627	485-531	523
1042	107	158	132	132	132	132	132	90
1043	279	454	408	487	408	408	408	487
1044	66	66	66	66	66	66	66	66
1046	47	47	47	74	47	47	47	74
1047	40	40	41	78	41	41	41	78
1048	38	70	64	102	64	64	64	102
1049	81	94	101	204	71	106	100-101	161
1050	156	156	156	156	156	156	156	112
1051	131	345	559	559	131	345	559	559
1052	160	220	279	279	160	220	279	222
1053	487	1,025	753	1,230	542	970	749-753	765
1054	554	567	580	769	554	567	580	769
1055	46	46	46	154	46	46	46	154
1056	137	163	181	432	137	163	181	432
1057	155	155	155	155	155	155	155	155
1058	39	39	39	45	39	39	39	45
1059	1,584	1,204	2,159	1,827	764	1,267	1,066-2,159	1,119
1060	3,008	2,076	3,885	3,422	1,313	2,540	2,085-3,885	2,189
1061	200	200	200	204	200	200	200	204
1062	319	319	319	319	319	319	319	319

TABLE G-5 (Continued)

PROPOSED STOCKING RATES BY ALTERNATIVE

Allotment number	Alternative A Short-term (AUMS)[1]	Long-term (AUMS)	Alternative B Short-term (AUMS)[2]	Long-term (AUMS)	Alternative C Short-term (AUMS)[3]	Long-term (AUMS)	Alternative D Short-term (AUMS)[4]	(Preferred) Long-term (AUMS)
SECTION 3 PERMITS (Continued)								
1064	644	406	657	673	134	355	407-657	502
1065	18	18	18	18	18	18	18	18
1066	300	300	300	300	300	300	300	300
1067	331	331	331	331	331	331	331	331
1068	169	169	169	169	169	169	169	90
1069	1,539	643	1,539	1,108	397	788	643-1,539	675
1072	71	71	71	71	71	71	71	71
1073	1,123	1,550	1,411	1,411	1,123	1,495	806-1,411	846
1074	27	27	27	27	27	27	27	27
1075	876	701	1,089	772	233	554	371-1,089	446
1076	47	47	47	47	47	47	47	47
1078	8	8	8	8	8	8	8	8
1079	15	15	15	15	15	15	15	15
1080	4,463	4,018	4,463	4,734	2,633	3,761	3,000-4,463	3,175
1081	17	17	17	17	17	17	17	17
1082	7	45	33	33	33	33	33	33
1083	225	225	225	225	225	225	225	225
1084	11	11	11	18	11	11	11	18
1085	10	10	10	10	10	10	10	10
1086	309	552	309	522	309	309	309	522
1501	180	200	200	247	180	190	200	247
1505	154	127	237	248	57	172	127-237	127
1506	4	4	4	13	3	3	3-4	9
1509	158	186	192	560	134	244	191-192	191
1516	325	325	325	587	228	518	323-325	350
1522	92	92	92	167	64	84	91-92	91
1528	25	25	25	69	23	48	24-25	24
1529	21	21	21	8	0	8	8-21	8
1532	96	316	482	482	482	482	482	482
1533	2	12	12	15	12	12	12	15
1534	189	394	189	532	163	333	188-189	299
1538	1,029	987	1,061	1,061	1,029	1,061	1,061	1,061
1540	1	1	1	1	1	1	1	1
1541	51	64	64	90	45	63	63-64	66
Section 3 Permits subtotal	**38,141**	**44,001**	**49,284**	**44,705**	**32,686**	**44,219**	**38,584**	**41,368**
SECTION 15 LEASES								
2502	42	42	42	42	42	42	42	42
2504	482	926	804	780	563	1,173	778-804	778
2511	127	127	127	127	127	127	127	127
2519	156	156	156	156	156	156	156	156
2523	144	144	144	144	144	144	144	144
2524	40	40	40	40	40	40	40	40
2528	140	140	140	140	140	140	140	140
2532	1,234	1,244	1,245	1,245	1,234	1,239	1,245	1,245
2535	8	8	8	8	8	8	8	8
2544	403	412	408	408	408	408	408	408
2545	1,630	1,634	1,632	1,632	1,632	1,632	1,632	1,632
2551	820	820	820	820	820	820	820	820
2553	317	317	317	317	317	317	317	317
2561	935	1,059	1,059	1,059	935	997	1,059	1,059
3001	135	335	235	235	235	235	235	235
3002	8	8	8	8	8	8	8	8
3003	323	329	326	326	326	326	326	326
3004	635	579	579	1223	405	859	574-579	801
3005	39	39	39	39	39	39	39	39
3006	185	185	185	185	185	185	185	185
3007	332	332	332	332	332	332	332	332

TABLE G-5 (Continued)

PROPOSED STOCKING RATES BY ALTERNATIVE

	Alternative A		Alternative B		Alternative C		Alternative D	(Preferred)
Allotment number	Short-term (AUMS)[1]	Long-term (AUMS)	Short-term (AUMS)[2]	Long-term (AUMS)	Short-term (AUMS)[3]	Long-term (AUMS)	Short-term (AUMS)[4]	Long-term (AUMS)
SECTION 15 LEASES (Continued)								
3008	17	7	18	19	0	6	7-18	7
3009	32	32	32	32	32	32	32	32
3010	94	94	94	94	94	94	94	94
3011	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040
3012	134	31	134	134	17	45	31-134	31
3013	31	31	31	31	31	31	31	31
3014	13	13	13	13	13	13	13	13
3015	3	3	3	3	3	3	3	3
3017	4	4	4	4	4	4	4	4
3018	5	5	5	5	5	5	5	5
3019	21	21	21	21	21	21	21	21
3020	43	43	43	43	43	43	43	43
3021	68	68	68	68	68	68	68	68
3022	202	202	202	202	202	202	202	202
3023	42	42	42	42	42	42	42	42
3024	56	56	56	56	56	56	56	56
3025	60	60	60	60	60	60	60	60
3026	37	37	37	37	37	37	37	37
3027	120	120	120	120	120	120	120	120
3028	230	230	230	230	230	230	230	230
3029	2,456	797	2,489	1,141	410	665	806-2,489	874
3030	70	70	70	70	70	70	70	70
3032	15	15	15	15	15	15	15	15
3033	80	80	80	80	80	80	80	80
3034	14	14	14	14	14	14	14	14
3035	2,825	1,102	2,825	2,882	156	1,389	1,099-2,825	1,407
3036	36	44	36	36	36	39	36	36
3037	4	4	4	4	4	4	4	4
3038	31	35	35	35	31	33	35	35
3040	28	28	28	28	28	28	28	28
3041	13	13	13	13	13	13	13	13
3042	35	35	35	35	35	35	35	35
3043	198	198	198	198	198	198	198	198
3044	150	150	150	150	150	150	150	150
3045	38	38	38	38	38	38	38	38
3046	20	20	20	20	20	20	20	20
3047	72	82	72	113	50	61	71-72	71
3048	591	591	591	591	591	591	591	591
3049	70	70	70	70	70	70	70	70
3050	14	14	14	14	14	14	14	14
3051	236	236	236	236	236	236	236	112
3052	4,038	4,038	4,038	4,038	4,038	4,038	4,038	4,038
3053	3,248	1,799	3,248	2,201	432	3,378	1,617-3,248	1,799
3054	20	20	20	20	20	20	20	20
3055	44	44	44	44	44	44	44	44
3056	8	8	8	8	8	8	8	8
3057	2	2	2	2	2	2	2	2
3058	20	20	20	20	20	20	20	20
3059	206	107	206	233	62	112	130-206	151
3060	150	150	150	150	150	150	150	150
3062	20	20	20	20	20	20	20	20
3063	7	7	7	7	7	7	7	7
3064	365	365	365	365	365	365	365	365
3065	11	11	11	11	11	11	11	11
3066	49	49	49	49	49	49	49	49
3067	1,123	1,189	1,555	2,013	1,089	1,479	1,154-1,555	1,211
3068	610	179	851	378	177	337	252-851	312
3069	394	123	396	494	22	203	171-396	372
3070	43	43	43	43	43	43	43	43
3071	210	210	211	211	211	211	211	211

TABLE G-5 (Continued)

PROPOSED STOCKING RATES BY ALTERNATIVE

	Alternative A		Alternative B		Alternative C		Alternative D	(Preferred)
Allotment number	Short-term (AUMS)[1]	Long-term (AUMS)	Short-term (AUMS)[2]	Long-term (AUMS)	Short-term (AUMS)[3]	Long-term (AUMS)	Short-term (AUMS)[4]	Long-term (AUMS)
SECTION 15 LEASES (Continued)								
3072	20	20	20	20	20	20	20	20
3073	605	302	605	605	482	482	605	373
3074	63	63	63	63	63	63	63	63
3075	30	30	30	30	30	30	30	30
3076	168	168	168	168	68	68	68	68
3078	40	37	40	40	40	40	40	37
3079	864	864	864	864	864	864	864	864
3080	95	95	95	95	95	95	95	95
3081	60	60	60	60	60	60	60	60
3082	40	40	40	40	40	40	40	40
3083	40	27	40	40	40	40	40	27
3084	109	109	109	109	109	109	109	109
3085	8	8	8	8	8	8	8	8
3086	2,696	2,696	2,696	2,696	2,696	2,696	2,696	2,629
3087	229	229	229	229	229	229	229	229
3088	275	182	275	275	275	275	275	182
3089	87	89	89	89	89	87	89	89
3090	344	344	344	344	344	344	344	344
3091	2,051	2,046	2,297	2,767	1,608	2,141	2,046-2,297	2,095
3092	21	31	26	26	26	26	26	26
3093	215	215	215	215	215	215	215	215
3094	271	329	300	300	300	300	300	300
3095	177	177	177	177	177	177	177	177
3096	83	83	83	83	83	83	83	83
3097	4	4	4	4	4	4	4	4
3098	3	3	3	3	3	3	3	3
3099	19	19	19	19	19	19	19	19
3100	65	65	65	65	65	65	65	65
3101	8	8	8	8	8	8	8	8
3102	1,056	346	1,182	916	301	665	477-1,182	689
3104	200	49	259	149	19	58	72-259	79
3105	2	2	2	2	2	2	2	2
3106	134	134	134	134	134	134	134	134
3107	77	77	77	77	77	77	77	77
3108	209	209	209	209	209	209	209	209
3109	1	1	1	1	1	1	1	1
3110	91	45	91	91	60	75	91	45
3111	90	254	254	254	254	254	254	254
3112	1,254	376	1,254	1,001	325	589	530-1,254	545
Section 15 Leases subtotal	**39,755**	**32,866**	**41,611**	**33,493**	**28,685**	**36,291**	**33,157**	**33,986**
PLANNING AREA TOTAL	**77,896**	**76,867**	**90,895**	**93,577**	**61,371**	**80,510**	**71,741**	**75,354**

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[1] Stocking rates reflect the average five-year licensed use by allotment.

[2] Proposed stocking rates reflect active preference.

[3] Proposed stocking rates are at a level required to provide the habitat needs of WGFD wildlife population objectives for big game ungulates.

[4] Proposed stocking rates range from the suggested stocking rates in the technical range site guides up to existing active preference. Suggested stocking levels are based on the present and the predicted ecological condition of the range sites in the allotment.

Fences would be constructed according to the specifications outlined in BLM Manual Handbook H-1741-1 for the control of livestock and for the protection and enhancement of wildlife species and their habitats. These specifications consider areas of seasonal movement by big game species, big game habitat areas, critical wildlife habitat, wild horse range, and drainage crossings for the development of standards that would minimize effects on those affected resources.

An example of certain stipulations that could be applied is a given spacing of the strands and total height of the fence that will allow ease of movement by certain wildlife species. Variances of these requirements can be exercised by the authorized officer after consultation with the affected parties.

Water Developments

General

Water developments such as springs, stock ponds, reservoirs, catchments, pipeline systems, and wells are constructed to provide water sources for both domestic and wildlife species, to make available of areas otherwise restricted from livestock grazing because of the lack of water, and to relieve areas associated with existing watering facilities, where grazing pressures generally are heavy.

Springs

The development of a spring involves the placement of a collection system to funnel the water into a buried box structure. The box normally is made from a section of metal culvert with a cover and an outlet fitting in which a delivery pipe is connected. A pipeline delivers the water to an outside trough for use by wildlife and livestock. The spring area is commonly fenced to exclude possible damage resulting from livestock.

Catchments

Catchments are constructed with the use of an asphalt or butyl lined collection pit with an attached storage tank. Pipelines are then used to distribute the stored water source to various locations throughout an allotment or management area.

Reservoirs

Reservoir sites are selected on the basis of specific allotment management objectives and through consultation with hydrologists, engineers, range conservationists, and the affected permittees. BLM guidelines and specifications are followed in the construction of dams or earthwork type activities.

Wells

The placement of a well is based on geological reports that predict the probability of success and determine the expected depth of drilling to reaching the aquifer. All federal, state, and local regulations are observed in the development of groundwater facilities.

Pipelines

Whenever practical, pipelines are buried to a depth of approximately 12-18 inches to protect them from adverse weather conditions and surface activities. In cases where soil structures or terrain prevents this method, the pipeline is placed on the surface of the ground and made of a higher quality materials to avoid or minimize the above-mentioned hazards. Most pipelines have water tanks located every half-mile along the routes.

Vegetative Manipulations

Prescribed Burning

Prescribed burning generally is an acceptable method of reducing the amount of sagebrush that has increased to an undesirable level. It would be initiated through consultation among DEQ, WGFD, BLM, the affected landowners, and owners of adjacent property. Burning in the spring before perennial growth or in the fall after the desirable grasses have become dormant achieves the best results. Burn plans that identify specific operational procedures would be developed before burning is carried out.

Reseeding after the burn would be authorized for areas or vegetative communities not capable of natural regeneration. Seed mixtures would be prescribed on the basis of adaptability, management objectives, and surrounding vegetation of the area. Seedbed preparation normally would not be required.

Contour Furrowing

The primary objective of contour furrowing is to retain water on the land and prevent erosion through the development of an increased forage yield. The spacing and depth of the furrows vary depending on the soils, terrain, and overall objectives on the site, but furrows commonly are spaced 2 feet apart and made 4 to 8 inches deep. A seed mixture is applied to speed up the recovery rate of the natural community. Species to be seeded would be selected to meet management objectives developed for the allotment.

Interseeding

Interseeding is considered an alternative to complete seedbed preparation when erosion hazards are too high, the preparation and costs of preparing a seedbed are undesirable, or the overall objective is to modify or restore rather than to replace the existing plant stand. The primary purpose of interseeding is to reestablish native plant communities of higher successional order than the existing ones and to raise overall range condition to fair or good in a relatively short time.

Periods of rest from livestock are essential following interseeding. Closely regulated grazing may be required for several years to protect the young seedlings (which the grazing animals prefer) until stability and establishment have occurred.

Chemical Treatments

The application of chemicals for the control of noxious weeds and sagebrush would be cleared by the U. S. Department of Interior. Specific methods of applying chemicals on the ground would be used for the control of noxious weeds and the reduction of sagebrush canopies that have increased to undesirable levels. All applications of chemicals would be accomplished under the environmental constraints of the Big Horn Basin Designated Noxious Weed Treatment Program and the Northwest Area Noxious Weed Control Environmental Statement. Only four herbicide formulations will be approved for use on public lands at this time: picloram, glyphosate, 2.4-D and dicamba. Other formulations may be approved in the future if an acceptable "worst case analysis" is performed for the specific chemical. Water quality monitoring of treated areas will be established according to the criteria outlined in the Northwest Area Noxious Weed Control Program Final EIS.

Ripping and Seeding

The purpose of ripping is to break up compacted layers that are restricting root and moisture penetration. The depth of penetration depends on the depth of the restrictive layer, but it generally ranges from 10 to 36 inches. Because of the high costs associated with this method, this technique would be limited to responsive sites that will yield a high rate of return. A seed mixture would be selected on the basis of adaptability and specific allotment objectives.

RANGE MONITORING STUDIES

Purpose

The purpose of monitoring studies is to provide the data needed for making management decisions, determining the effectiveness of on-the-ground management actions, and evaluating progress toward meeting management objectives on high priority allotments. Management objectives in the planning area are (a) to gather adequate data on all "I" and "M" category allotments, (b) to determine the effects of management actions on the rangeland resources, and (c) to provide quantifiable data needed to support management decisions. All monitoring plans will follow BLM Manual 4400, Technical References 4400-1 through 4, Instruction Memo 87-236, and the Wyoming Monitoring Handbook (H-4423-1) as modified.

Methods

A formal evaluation of any allotment or management unit must examine the effects of consumptive uses in that area, such as livestock grazing, wild horses, and wildlife. A high degree of interdisciplinary coordination will ensure that multiple use principles are considered and that all interested and affected parties are involved in the development of the objectives. These objectives must be meaningful, specific, and measurable.

The monitoring studies established in specific allotments where wildlife-livestock conflicts have been identified will be designed to provide information for wildlife and range management personnel to determine actual problems or conflicts. At a minimum, information will be needed on actual use levels and forage utilization by each ungulate species involved. This will require close cooperation and specific input from the WGFD during the planning, implementation, and analysis of the monitoring studies.

Data will be collected in areas identified in the *McCullough Peaks Wild Horse Herd Area Management Plan* (USDI, BLM 1985) during winter through aerial and ground observations. Actual numbers, distribution patterns, and utilization levels specific to the wild horses will be determined to provide feasible baseline data for determining impacts.

Monitoring

Monitoring plans will include consultation, cooperation, and coordination with range users both before and during the development of allotment monitoring studies. The most important objective is to develop trust, understanding, and a sound working relationship between BLM and the users. Range users can help with the monitoring plan by collecting ground data, making observations, and providing specific operational experience that the individual range specialist may lack.

Monitoring objectives for the state of Wyoming are consistent with those identified for the BLM in BLM instruction memorandum 86-706. In general, the instruction memorandum directs that adequate data be collected on all "I" and "M" category allotments to determine the effects of management actions on rangeland resources and to provide quantifiable data needed to support management decisions. Objectives for each specific allotment will be developed in conjunction with the range user and other interested parties. These specific objectives will be included in allotment monitoring plans that will be prepared in conjunction with allotment grazing plans.

The method, amount and intensity of monitoring established and conducted for each allotment will vary depending on category, resource values, and specific allotment objectives. High intensity monitoring will be implemented in allotments identified as top "I" priority. Low-intensity monitoring studies will be carried out on the remaining lower priority "I" and "M" category allotments so that significant changes in current management or resource values can be detected.

High-intensity studies provide sufficient data to support decisions that establish grazing capacities, seasons of use, and the kind and number of grazing animals by allotment. Studies at this level of monitoring are those that determine actual use and forage utilization as well as climatic studies.

Annual production data will be collected to relate forage utilization levels to an annual amount of biomass. Trend studies will be used along with annual climatic data and information on actual use and forage utilization to analyze the effectiveness of the management decisions taken to achieve specific allotment objectives.

Low-intensity studies are those that detect undesirable changes in existing range condition that could warrant re-evaluation of the priority or category for that allotment. At a minimum, such studies include an allotment inspection and the completion of form WY 4120-2 (which indicates when the allotment was inspected) and form WY 4120-3 (on which the employee records consultation with the operator, vegetation condition, kind and location of livestock, range improvements and management practices, and other information noted). This document and monitoring will be required at least every five years. Actual use data will be submitted for all "I" and "M" allotments.

APPENDIX J

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

INTRODUCTION

Seven areas have been considered for possible designation as areas of critical environmental concern (ACECs) in this RMP/EIS. Five of these were discussed in the draft RMP/EIS: The Carter Mountain Alpine Tundra area, Chapman Bench, the Five Springs Falls area, Little Mountain, and Sheep Mountain Anticline. The locations of these areas are shown on maps 30 through 36 in the draft RMP/EIS. Two additional ACEC proposals are described for the first time in this final EIS: the Clarks Fork Canyon proposed ACEC and the Wildlife Winter Support Habitat proposed ACEC.

To be designated an ACEC, an area must meet criteria for relevance and importance as mandated in 43 CFR 1610.7-2a. That legislation indicates that an area must possess "a significant historic, cultural, or scenic value; a fish and wildlife resource or other natural system or process; or natural hazard" (relevance) and that the value described must have "substantial significance and values" with "qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern," especially when compared to like or similar resources (importance). Designation may be appropriate if qualities or circumstances are present that make a resource fragile, sensitive, rare, irreplaceable, endangered, threatened, or vulnerable to adverse change.

The special features of the five areas are described in the following sections. A more detailed report on the areas considered for designation is on file at the Cody Resource Area office.

CLARKS FORK CANYON PROPOSED ACEC

Introduction

Many reviewers of the draft RMP/EIS requested ACEC designation for the mouth of the Clarks Fork Canyon. These reviewers cited the canyon's highly scenic nature and the need to support a recommendation of the Shoshone National Forest that identified a portion of the Clarks Fork of the Yellowstone River for NWSRS inclusion (see draft RMP/EIS, page 177). BLM has studied about 3,800 acres at the mouth of the Clarks Fork Canyon for possible ACEC designation.

Relevance

The area around the mouth of the Clarks Fork Canyon contains a number of significant resources. These resources include the scenic flat iron or flying buttress rock formations at the mouth of the canyon, peregrine flacon recovery habitat, and a portion of the Nez Perce National Historic Trail. These resources meet ACEC relevance criteria.

Importance

Scenic resources, comparable or better than those at the mouth of the Clarks Fork Canyon, can be found at Sheep Mountain Anticline north of Greybull, and along the west slope of the Bighorn Mountains. The Nez Perce Trail is of national significance, however, the one-quarter mile segment of the trail that would cross the proposed ACEC is not more significant than other portions of the trail. The peregrine falcon recovery habitat area in the mouth of the canyon does not have any greater significance than five other recovery areas in the planning area, or numerous other peregrine falcon recovery habitat areas that exist in the Greater Yellowstone Ecosystem.

Conclusions

While the mouth of the Clarks Fork Canyon contains several resources that are significant, these resources do not meet the importance criteria necessary for ACEC designation.

WILDLIFE WINTER SUPPORT HABITAT PROPOSED ACEC

Introduction

The WGFD and the Wyoming Wildlife Federation (WWF) proposed the designation of approximately 50,600 acres of overlapping elk, mule deer, and bighorn sheep crucial winter ranges (as delineated by the WGFD) as an ACEC. The objective of ACEC designation management would be to maintain the quality of overlapping crucial winter support habitat.

The proposed ACEC is located in the planning area along the Shoshone National Forest boundary—primarily on the eastern slope of the Beartooth Mountains, Bald Ridge, and Pat O'Hara Mountain, and in the regions of Rattlesnake, Sheep and Carter mountains—and along the Bighorn National Forest boundary with additional areas near Deer and Cottonwood creeks.

Relevance

The proposed ACEC is relevant in that it provides crucial support habitat for elk of the Carter Mountain, Clarks Fork, Horse Creek, and North Fork Shoshone herd units, mule deer of the Clarks Fork, Devil Canyon, Horse Creek, Meeteetse, North Fork Shoshone, and South Fork Shoshone herd units, and bighorn sheep of the Clarks Fork, Francs Peak, Trout Peak, and Wapiti Ridge herd units. Crucial winter ranges differ from the larger winter ranges for these populations in that the habitat on crucial winter ranges is necessary to maintain the core populations of these herd units during periods of severe winter weather. Such weather normally occurs two out of ten years.

Importance

The proposed ACEC is locally significant in that it is crucial winter support habitat for two and three big game ungulate species. However, the proposed ACEC does not appear to possess qualities of more than local significance: Examples of overlapping crucial habitat areas are prevalent throughout the western United States, and the environmental effects of management on these ranges (both the adverse and beneficial effects) would not extend beyond the limits of the Bighorn Basin.

Conclusions

While all wildlife crucial habitat areas are significant, areas of habitat overlap are not necessarily more significant than individual crucial habitat areas. The proposed ACEC does not appear to meet the importance criteria for ACEC designation.

CARTER MOUNTAIN ALPINE TUNDRA PROPOSED ACEC

Introduction

Approximately 7,819 acres of federal land on Carter Mountain would be designated an ACEC. The objective of the proposed ACEC would be to protect areas of unique alpine tundra and fragile soils at elevations of 10,000 to 11,300 feet above sea level.

Relevance

Only limited scientific information is available regarding the ecological relationships of alpine soils, vegetation, and wildlife in the Absaroka Range and throughout alpine ranges in Wyoming. The Carter Mountain area is unique in that much of it remains in essentially pristine condition, although some disturbance has occurred in the past. This juxtaposition of disturbed and undisturbed alpine tundra allows a unique opportunity to study the effects of disturbance on alpine soils, vegetation, and wildlife.

Importance

The Carter Mountain alpine tundra area contains five elements found in alpine habitats: cliffs and ledges, talus and scree, fell-field and felsenmeer, meadow and turf, and standing and running water. The area is unusual for its absence of normally occurring adjacent forest belt and timberline. This condition has allowed a number of lowland species to occur in association with more typical alpine associates, including *Pyrrocoma uniflora*, *Artemisia campestris*, and *Antelocapra americana*.

The rare plant taxa known to be present are one rare endemic (*Cymopteris sp*) and four rare peripheral taxa (*Campanula uniflora*, *Helictrotrichon hookeri*, *Papaver kluanese*, and *Thalictrum alpinum*).

The area provides regionally important recreational opportunities. It provides yearlong and crucial seasonal habitat for several big game species.

Conclusion

The Carter Mountain alpine tundra area meets relevance and importance criteria for ACEC designation.

CHAPMAN BENCH PROPOSED ACEC

Introduction

Approximately 15,400 acres on Chapman Bench would be designated an ACEC. The management objective would be to maintain and improve habitat for nesting populations of long-billed curlew and mountain plover. Management in this area would be designed to provide optimum wildlife-related opportunities.

The long-billed curlew and the mountain plover are candidate species for federal protection under the Endangered Species Act of 1973, as amended (*Federal Register* 50). The long-billed curlew also is listed by the Wyoming Game and Fish Department as a species in need of special management in Wyoming because of declining numbers and restricted distribution (WGFD 1985).

Relevance

The Chapman Bench is inhabited by (a) a significant breeding concentration of long-billed curlew (a federally listed candidate species and a state listed species in need of special management), and (b) breeding population of mountain plover (a federally listed candidate species). The long-billed curlew and mountain plover are protected under the Migratory Bird Treaty Act of 1918, as amended. Both species also are protected nongame species in Wyoming.

Cody Resource Area personnel conducted a survey in 1986 for breeding long-billed curlews in and around the proposed ACEC. This survey followed persistent reports during the last decade of curlews in this area. Records of this survey are on file at the Cody Resource Area office. From this survey it was determined that the proposed ACEC was used by breeding long-billed curlews and mountain plovers. Although the survey was not designed to determine breeding densities, resource area personnel estimated that the proposed ACEC had 15 to 20 curlew breeding pairs and at least five plover breeding pairs in 1986. On the basis of the survey, a review of the professional literature and consultations with regional biologists familiar with the current status of each of these birds, BLM personnel concluded that a highly significant curlew breeding population is present on Chapman Bench.

The long-billed curlew is endemic to North and Central America and the mountain plover to North America. (Graul & Webster 1976, Howe 1983.) Both species bred throughout the prairie regions of central North America during the past century; however, the species' breeding ranges have been substantially reduced through habitat losses caused by cultivation and to a lesser extent by dairying activities and market hunting. Loss of food bases through chemical insect control also has reduced the breeding ranges. (Graul & Webster 1976, McCallum, Graul, and Zaccagnini 1977, Allen 1980, Renaud 1980, Dinsmore 1983, Howe 1983.)

Cultivation has eliminated the long-billed curlew from the eastern portion of its former range (Howe 1983). Curlews no longer occur in Illinois, Wisconsin, Iowa or Minnesota (McCallum, Graul, and Zaccagnini 1977). Renaud (1980) stated that curlews were rare or absent in large areas of Saskatchewan that were under cultivation. In Wyoming, curlews have experienced "drastic population declines" in specific areas, but the extent and causes of these declines are unknown (Cochrane & Oakleaf 1982). Agricultural activities also have eliminated mountain plover breeding in the Dakotas and Kansas (Graul & Webster 1976).

Importance

The proposed ACEC is important for the following reasons:

It is one of only two areas known in Wyoming with significant concentrations of nesting curlews

It appears to be one of a limited number of areas with significant curlew breeding numbers in the region (Wyoming, Montana, and eastern Idaho)

It is the only such area known to occur on BLM-administered public land

It appears to be an established and historic curlew nesting area

It lies beyond the published nesting range of the mountain plover.

The Secretary of the Interior has identified the two species in the Chapman bench area as having the potential of being listed as threatened or endangered. No state-sensitive species have been formally identified in Wyoming.

These species also meet the criteria of BLM Manual 6840. BLM Policy is to ensure, within the framework of FLPMA, that the crucial habitats of sensitive species will be managed and conserved to minimize the need for listing of these species by federal or state governments in the future. The ACEC designation also would be consistent with WGFD objectives for species in need of special management attention.

A review of the scientific literature and professional consultations determined the existence of only one other known long-billed curlew nesting concentration in Wyoming. Before the Chapman Bench population was discovered, Cochrane & Oakleaf (1982) wrote: "Curlews now occur in concentrated numbers [in Wyoming] near Daniel, in Sublette County, and in highly dispersed and isolated pairs . . . in the remainder of the state." They classified only the Daniel population as abundant or common in Wyoming; populations in the remainder of the state were classified as uncommon. Cochrane (1983) stated that the Daniel population declined between 1963 and 1983.

Wyoming records from all published and anecdotal sources from 1940 through 1981 showed only two records of long-billed curlew nests outside the Daniel area. A search of the Wyoming Game and Fish Department's computerized Wildlife Observation System found one additional record of a 1982 nest on private land 12 miles south of the proposed ACEC, but no other evidence of nesting, territorial behavior, or courtship behavior outside the Daniel area. The USFWS surveyed 143 randomly selected quarter-sections in grassland habitats in eastern Wyoming for breeding birds between 1976 and 1978. Only six curlews in three locations were found in that survey.

Surveys in three areas of the Daniel population provided density estimates of 4.2, 1.6 and 0.9 curlews per 100 hectares. Although no density surveys were made on Chapman Bench, the proposed ACEC is estimated to support 0.8 to 1.1 curlews per 100 hectares. Although curlews are concentrated in the western portion of the proposed ACEC where densities would be significantly higher, the Daniel population covers a significantly greater area.

Allen (1980) determined that nesting long-billed curlews return to the same nest territories in subsequent years, and Redmond and Jenni (1982a) reported chicks returning to the natal site to breed. This information and the history of curlew sightings on Chapman Bench during the past decade indicate that the proposed ACEC is a traditional curlew nesting area.

Graul & Webster (1976) concluded that mountain plovers breed only in southern Montana, Wyoming, and Colorado. In fact, Chapman Bench is west of the published breeding range (Dinsmore 1983). Graul & Webster (1976) said that plovers occurred only in isolated populations in Montana and Wyoming, and that only 5% of this area contained breeding plovers.

Conclusions

The Chapman Bench area meets relevance and importance criteria for ACEC designation because of its significant breeding concentrations of long-billed curlews and mountain plovers.

FIVE SPRINGS FALLS PROPOSED ACEC

Introduction

Approximately 160 acres of federal land at Five Springs Falls on the West Slope of the Bighorn Mountains would be designated an ACEC. The management objective would be to protect existing populations of the following four near-endemic rare and sensitive plant species by providing a prescription for the management of recreation and surface-disturbing activities so as to prevent loss of sensitive plant life and preserve visual aesthetics:

Erigeron allocotus (No known common name)

Penstemon caryi (Cary beardtongue)

Stanleya tomentosa (Princes plume var. tomentosa)

Sullivantia hepemanii (Sullivantia)

Relevance

The Five Springs Falls area provides unique habitat for four plant species that are known to occur only in Wyoming and one other state. This unique habitat is composed of vertical cliff walls that are kept moist by spray from the waterfall. The BLM administers a campground on the eastern edge of the proposed ACEC.

Importance

The plant species for which special management is proposed are known to occur only in Wyoming and one other state. A developed recreation site and trails exist near and within the proposed ACEC boundary.

One major and one minor waterfall in a steep rocky canyon are popular public recreational and visual attractions both locally and regionally.

The area is used yearlong by elk and mule deer, and it is inhabited by various predators, raptors, small mammals, and songbirds. Current recreational uses are the developed campground and hiking trails, photography and big game hunting.

Conclusions

The Five Springs Falls area meets relevance and importance criteria for ACEC designation because of the unique habitat it provides for near-endemic rare and sensitive plant species.

LITTLE MOUNTAIN PROPOSED ACEC

Introduction

Approximately 20,510 acres of BLM-administered public land on Little Mountain would be designated an ACEC. The management objective would be to protect and manage important cave resources, cultural, and paleontological values. Another purpose would be to provide better protection to the public from hazards associated with former uranium mining activities.

Mine shafts and tailings from previous uranium mining activities are present in the Little Mountain proposed ACEC. According to criteria for the relevance and importance of ACECs, an environmental resource with a natural hazard may be found relevant where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values or to fish and wildlife resources or other natural systems or processes, or when such attention is necessary to protect life and safety from natural hazards. A natural hazard may be found important if it poses a significant threat, either existing or potential, to human life or property.

Relevance

The Little Mountain proposed ACEC contains karst topography, paleontological resources, and cultural resources. As mentioned previously, it also contains a potential hazard from previous uranium mining activities. Management action is needed to protect and prevent irreparable damages to the resources and to protect life and safety from hazardous mine shafts and tailings.

The karst topography, paleontological resources, and cultural resources and the hazard from previous uranium mining all are important. The resources are interrelated within the proposed Little Mountain ACEC, and all of them enhance the overall importance of the area.

The karst topography has given researchers and recreational cavers vast subterranean areas to study and explore. Openings to these caves trapped animals, leading to preservation of a fossil record of previous inhabitants. Sediments that washed into the caverns contained uranium, which was sought after by miners in the early 1950s. Unfortunately, the hazardous tailings and open mine shafts remain.

Aboriginals occupied the area for approximately 11,000 years, leaving a vast storehouse of information regarding prehistoric and protohistoric adaptive strategies.

The remoteness of the Little Mountain area has helped to protect its resources. Few people except miners and ranchers venture into the area; however, some people go there to do research on cultural or paleontological resources, and there is some recreational use of the caves.

Importance

The mine shafts and tailings from uranium mining are a safety hazard. Mine reclamation clean-up and site protection for the public would be encouraged.

The caves in the areas are nationally important, as are the diverse cultural resources. Those resources could be affected by surface-disturbing activities. Any action that would alter the existing karst topography could detract significantly from the recreational and scientific values of the caves and could result in loss of cultural resources.

Conclusions

The Little Mountain area meets relevance and importance criteria for ACEC designation because of its unique cave resources, paleontological and cultural values, and because of hazards to human life and safety in the area.

SHEEP MOUNTAIN ANTICLINE PROPOSED ACEC

Introduction

Approximately 12,285 acres acres of BLM-administered public lands in the Sheep Mountain Anticline area would be designated an ACEC. The management objective would be to protect the unusual geologic features of the area and enhance opportunities for education.

Relevance

The relevant resource in the Sheep Mountain Anticline area is the actual geologic structure, the Sheep Mountain Anticline. This anticline is significant and relevant because it represents 300 million years of the history of the earth's crust. The area contains an unusual exposure of a topographically expressed anticline where both the constructive and destructive forces that shape the earth can be observed. Sheep Mountain Anticline is one of the best exposures of its kind. It is used as an example in many geologic textbooks to explain and illustrate elementary geologic principles concerning structural geology and stratigraphy. This area is relevant because it has both scenic and scientific values.

Importance

The Sheep Mountain Anticline is more than locally significant. Well-preserved exposures of this kind are considered rare. The combination of topographic expression, exceptionally good rock exposures, and a deep canyon cut through the middle of the structure provides an unusual opportunity to view in detail the geologic processes which have worked to form the anticline (USDI, NPS n.d.).

The Sheep Mountain Anticline area offers opportunities for fishing, trapping, big game hunting, boating and ORV use, sightseeing, hiking, rock hounding, and spelunking.

Two caves, Cave of the Proud Eagle and Spence Cave, are on private land. It is rumored that another cave also exists in this immediate area. These caves have been documented to contain flowing thermal springs. Thermally active caves such as these are rare and geologically important because they could provide information about the formation of other caves that no longer contain flowing springs. In addition, the depositional processes in thermal spring caves may provide information on the formation of some ore bodies (Egemeier, 1981).

Conclusions

The Sheep Mountain Anticline area meets relevance and importance criteria for ACEC designation because of the opportunities it offers for the study of geology.

APPENDIX K

OIL AND GAS OPERATIONS

INTRODUCTION

Most of the text of this appendix appeared in documents produced by the Rock Springs District Office of the BLM. We have adapted a few paragraphs to reflect the situation in the Cody Resource Area, but the diagrams and most of the text were graciously provided by the Rock Springs District.

GEOPHYSICAL EXPLORATION

Oil and gas can be discovered by either direct or indirect exploration methods. The mapping of rock outcrops, seeps, and borehole data are examples of direct methods. Indirect methods include seismic, gravity, and magnetic surveys; these methods are described in this appendix.

Gravity Surveys

Gravitational prospecting detects microvariations in gravitational attraction caused by the differences in the density of various types of rock. Data derived from gravity surveys are used to generate anomaly maps from which faults and general structural trends can be interpreted. Gravity surveys are generally not considered definitive due to the many data corrections required (e.g., terrain, elevation, latitude, etc.) and the poor resolution of complex subsurface structures. The instrument used for gravity surveys is a small portable device called a gravimeter. Several types of gravimeters have been developed and virtually all can be easily carried by an individual. Generally, measurements are taken at many points along a linear transect and the gravimeter is transported either by backpack, helicopter, or off-road vehicle (ORV). The only surface disturbance associated with gravity prospecting is that caused by the ORV, if used.

Geomagnetic Surveys

Magnetic prospecting is most commonly used for locating metallic ore bodies but is used to a limited extent in oil and gas exploration. Magnetic surveyors use an instrument called a magnetometer to detect small magnetic anomalies caused by mineral and lithologic variations in the earth's crust. Magnetic surveys can detect large trends or lineaments in basement rocks and the approximate depth to those basement rocks, but in general magnetic surveys provide little specific data to aid in petroleum exploration. Again many data corrections are required to obtain reliable information and maps generated from magnetic data lack resolution and are considered preliminary. Magnetometers vary greatly in size and complexity and in general most magnetic surveys are conducted from the air by suspending a magnetometer under an airplane. Magnetic surveys conducted on the ground are nearly identical to gravity surveys and surface disturbance is minimal to nonexistent.

Seismic Reflection Surveys

Seismic prospecting is the best and most popular indirect method currently utilized for locating subsurface structures which may contain oil and(or) gases. Seismic energy (shock waves) is induced into the earth using one of several methods. As these waves travel downward and outward they encounter various strata, each having a different seismic velocity. As the wave energy encounters the velocity interface between stratigraphic layers where the lower stratum is of lower velocity some of the seismic energy is reflected upward. Sensing devices commonly called geophones are placed on the surface to detect these reflections. The geophones are connected to a data recording truck which stores data on magnetic tape. The time required for the shock waves to travel from the shot point down to a given reflector and back. The average velocity for the section between the surface and a given reflector must be estimated if no bore hole seismic data is available. This velocity estimation is the source of many errors in the seismic interpretation of wildcat areas. There are many methods available today which an explorationist can use to induce the initial seismic energy into the earth. All methods require preliminary surveying and laying of geophones.

The thumper and vibrator methods pound or vibrate the earth to create a shock wave. Usually four large trucks are used, each equipped with vibrator pads (about four-foot square). The pads are lowered to the ground and vibrators on all trucks are triggered electronically from the recording truck. Information is recorded and then the trucks move forward a short distance and the process is repeated. Less than 50 square feet of surface area is required to operate the equipment at each test site.

The drilling method utilizes truck-mounted drills which drill small-diameter holes to depths of 100 to 200 feet. Four to twelve holes are drilled per mile of line. Usually, a 50-pound charge of explosives is placed in the hole, covered, and detonated. The detonated explosives send energy waves below the earth's surface which are reflected back to the surface from various subsurface rock layers. The holes are drilled in a linear fashion, forming a line that can be many miles in length. In rugged topography, a portable drill is sometimes carried in by helicopter. Charges are placed in the hole as in a truck-mounted operation. Another portable technique is to carry the charges in a helicopter and place the charges on wooden sticks, or lath, three feet or so above the ground. Charges used are either 2½ or 5 pounds. Usually, 10 charges in a line on the ground are detonated at once. In remote areas where there is little known subsurface data, a series of short seismic lines may be required to determine the regional dip and strike of subsurface formations. After this, seismic lines will be aligned relative to the regional structure to make seismic interpretation more accurate. The seismic sensors and energy source are located along lines on a one- to two-mile grid. Although alignment may be fairly critical, spacing of the lines can often be changed one-quarter mile on a one-mile grid before the results will significantly affect the investigation program.

A typical drilling seismic operation may utilize 10 to 15 men operating five to seven trucks. Under normal conditions, three to five miles of line can be surveyed each day using the explosive method. The vehicles used for a drilling program include several heavy truck-mounted drill rigs, water trucks, a computer recording truck, and several light pickups for the surveyors, shot hole crew, geophone crew, permit man, and party chief. Public roads and existing private roads and trails are used. Off-road cross-country travel is also necessary. Motor graders and(or) dozers may be required to provide access to remote areas. Several trips a day are made along a seismograph line; this usually establishes a well defined two-track trail. Drilling water, when needed, is usually obtained from private landowners or local city officials (USDI 1981a).

Geophysical Management (Permitting Process)

Geophysical operations on and off an oil and gas lease are reviewed by the federal surface management agency.

The responsibilities of the geophysical operator and the BLM District Manager during geophysical operations are as follows (USDI 1978):

1. Geophysical Operator - The operator is required to file, in person or by mail, a "Notice of Intent to Conduct Oil and Gas Exploration Operations" for all operations on public lands administered by BLM. Standard forms (WY-04-3045-6) for this purpose are available in all BLM District Offices. The notice includes maps showing the location of the line, and all access routes, and must be filed in the BLM Resource Area Office before operations begin.

   The operator is also required to be bonded. A copy of the bond or other evidence of satisfactory bonding shall accompany the "Notice of Intent." Proper bonding can include a nationwide or statewide oil and gas bond with a rider for geophysical exploration or a $5,000 individual surety bond filed with the District Manager.

   Once the Notice of Intent has been filed, a prework conference or field inspection (if required) is conducted. Any special written instructions, orders, or approvals that may be given by the area manager at this prework conference must be complied with by the operator.

   Surface disturbing activities, such as bulldozing, require written approval by the area manager. Operators may be required to submit an archeological survey if dirt work is contemplated. The operator is required to comply with all applicable federal, state, and local laws such as the Federal Land Policy and Management Act of 1976, Historic Preservation Act of 1966, Threatened and Endangered Species Act, etc.

Any changes in the original Notice of Intent must be submitted in writing to the area manager. Written approval must be secured before activities proceed.

When operations are completed, the operator is required to file a Notice of Completion of Geophysical Exploration, after any required rehabilitation work is completed.

2. BLM Area Manager - The area manager is required to contact the operator immediately after the Notice of Intent is filed and explain the terms of the Notice, including the operating procedures to be followed, all current laws, and all BLM administrative requirements. A prework conference or field inspection is conducted and written instructions or orders given to the operator. The area manager is responsible for the examination of resource values and the development of appropriate surface protection and reclamation measures.

   Final inspection following filing of the Notice of Completion is also required of the area manager.

State Standards

In Wyoming, the operator is required to register with the State. State standards for plugging shot holes, personnel safety, etc., will be followed.

Mitigation

Seasonal restrictions are imposed to reduce conflicts with wildlife, watershed damage, and hunting activity.

The most critical management practice is compliance monitoring during and after seismic activity. Compliance inspections during the operation ensure that stipulations are being followed. Compliance inspections upon completion of work ensure that the lines are clean and the drill holes are properly plugged.

OIL AND GAS LEASING

The Mineral Leasing Act provides that all public lands are open to oil and gas leasing unless a specific order has been issued to close an area. As proposed in the Federal Onshore Oil and Gas Leasing Reform Act of 1987, all oil and gas leases are to be issued competitively by oral bid at lease sales, which will be held at least quarterly. Appropriate stipulations, as listed in appendix B, are added to leases for resource protection prior to lease sales. Public notice of the available lands and the added stipulations are provided 45 days prior to the sale. Competitive leases are issued with a primary term of five years. Leasing is prohibited on wilderness study areas and lands under study or recommended for wilderness.

Leases that receive either no bid or less than the minimum acceptable bid ($2 per acre) shall be offered as a noncompetitive lease (previously known as an over-the-counter (OTC) lease) for a period not to exceed 24 months. These leases are offered to the first qualified person to fill out a lease application, and upon payment of the application and first-year rental fees. Noncompetitive leases are issued with a primary term of 10 years.

Rental on nonproducing leases, competitive or noncompetitive, is $1.50 per acre per year for the first five years and $2.00 per acre thereafter. Royalties (12½%) are paid in lieu of rental on producing leases, and half of the royalties are returned to the state of Wyoming.

DRILLING PERMIT PROCESS

A federal lessee or operator is governed by procedures set forth by the Onshore Oil and Gas Order No. 1, "Approval of Operations on Onshore Federal and Indian Oil and Gas Leases," issued under 43 CFR 3164. Operating Order No. 1 lists the following as pertinent points to be followed by the lessee or operator: notice of staking (NOS); application for permit to drill (APD), which includes a multi-point surface use and operations plan; approval of subsequent operations; well abandonment; water well conversion; responsibilities on privately owned surface; and reports and activities required after well completion.

1. Notice of Staking (NOS) - After the company makes the decision to drill a well, they must decide whether to submit an NOS or application for permit to drill (APD). The NOS consists of an outline of what the company intends to do including a location map and sketched site plan. The NOS is then used as a document to review any conflicts with known critical resource values, and also used at the on-site inspection to provide the preliminary data to assess what additional items are necessary to complete the APD.

2. Application for Permit to Drill (APD) - The operator or lessee may submit a completed APD in lieu of notice of staking, but in either case no surface activity is conducted in con-

junction with the drilling until the APD is approved by the BLM.

If the APD option is used, an APD is submitted to the BLM and a field inspection is held with the operator and any other interested party. The purpose of the presite field inspection is to evaluate the operator's plan, to assess the situation for possible impacts (surface and subsurface), and to formulate resource protection stipulations. To lessen environmental impacts, a site may be moved, reoriented, or redimensioned, within certain limits, at the presite inspection. The proposed access road may also be rerouted (USDI 1981a). If necessary, site-specific mitigations are added to the APD for protection of surface and(or) subsurface resource values in the vicinity of the proposed activity.

The BLM is responsible for preparing environmental documentation necessary to satisfy the National Environmental Policy Act requirements and provide any mitigation measures needed to protect the affected resource values.

Consideration is also given to the protection of ground water resources. Plugging and abandonment procedures include measures to protect good quality ground water from contamination by hydrocarbons or poorer quality water. Drilling procedures for new wells also address ground water protection.

When final approval is given by the BLM, the operator may commence construction and drilling operations. Approval of an APD is valid for one year. If construction does not begin within one year, the stipulations must be reviewed prior to approving another APD (USDI 1981a).

Surface Disturbance Associated With Exploratory Drilling

Upon receiving approval to drill the proposed well, the operator moves construction equipment over existing roads to the point where the access road will begin (figure K-1). Generally, the types of equipment include dozers (track-mounted and rubber-tired), scrapers, and motor-graders. Moving equipment to the construction site requires moving several loads (some overweight and overwidth) over public and private roads. Existing roads and trails are improved in places and occasionally culverts and cattleguards are installed if required.

The length of the access road varies. Generally the shortest feasible route is selected to reduce the haul distance and construction costs. Environmental factors or the landowner's wishes may dictate a longer route. In rough terrain, the type of construction is sidecasting (using the material taken from the cut portion of the road to construct the fill portion); slightly less than one-half of the road bed is on a cut area and the rest is on a fill area. Roads are usually constructed with a 18-foot-wide running surface (in relatively level terrain). Soil texture, steepness of the topography, and moisture conditions may dictate surfacing the access road in some places but generally not for the entire length. The total acreage disturbed for each mile of access road constructed varies significantly with the steepness of the slope (USDI 1985b).

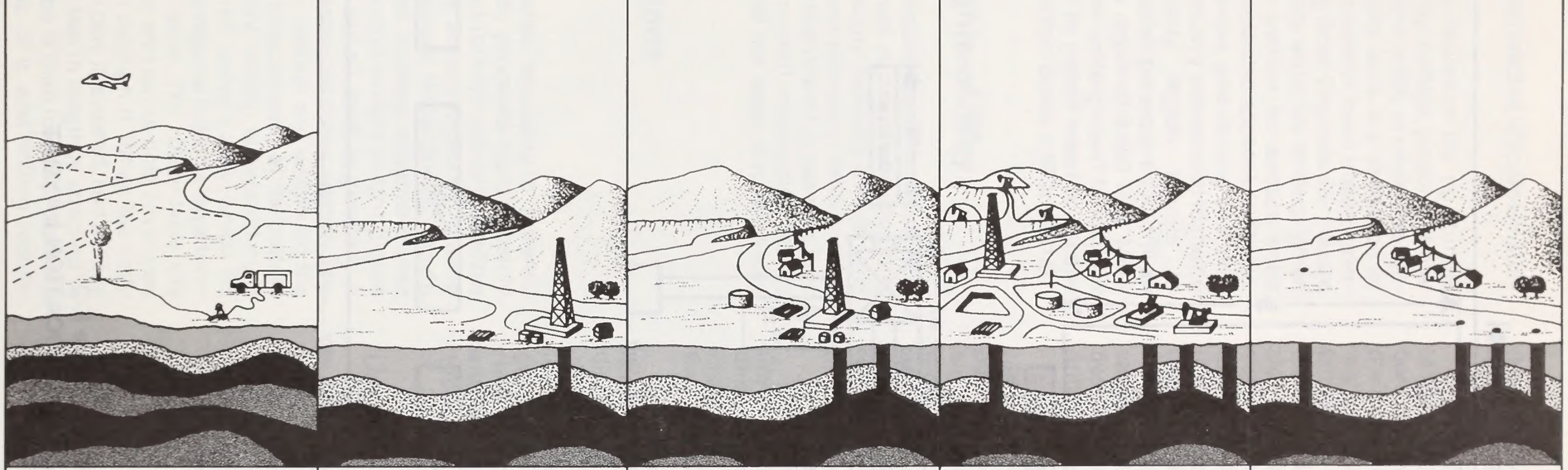
Well location construction requires that all soil material suitable for plant growth be removed from areas to be disturbed and stockpiled in a designated area. Sites on flat terrain usually require little more than removing the topsoil material and vegetation. Drilling sites on ridge tops and hillsides are constructed by cutting and filling portions of the location. The majority of the excess cut material is stockpiled in an area that will allow it to be easily recovered for rehabilitation. It is important to confine extra cut material in stockpiles rather than cast it down hillsides and drainages where it cannot be recovered for rehabilitation.

The amount of level surface required for safely assembling and operating a drilling rig varies with the type of rig, but averages 300 feet by 350 feet. Figure K-2 illustrates a typical well location layout. At least 25 feet is normally required to be on an area of cut instead of fill, between the drill point and the outer edge of the drilling platform. This ensures that the foundation of the drilling derrick is on solid ground and prevents it from leaning or toppling due to settling of uncompacted soil. I

In addition to the drilling platform, a reserve pit is constructed, usually square or oblong, but sometimes in another shape to accommodate topography. Generally, the reserve pit is 8 to 12 feet deep, but may be deeper to compensate for smaller length and width or deeper drilling depths.

Depending on the relation of the location to natural drainages, it may be necessary to construct water bars or diversions to control runoff. The area disturbed for construction and the potential for successful revegetation depends largely on the steepness of the slope.

Usually drilling activities begin within a week or two after the location and access road have been constructed. The drilling rig and associated equipment are moved to the location and erected. Moving a drilling rig requires moving 10 to 25 truck loads (some over legal weight and height) of equipment over public highways and private



PRELIMINARY INVESTIGATION	EXPLORATION	DEVELOPMENT	PRODUCTION	ABANDONMENT
(Unknown Geologic Structure) Preliminary investigations are carried out over large areas from aircraft and on the ground.	If the preliminary investigations indicate geologic structures may contain oil and gas, a lease is obtained and an exploratory well is drilled.	If oil and gas are discovered during the exploration phase and recovery is economically feasible, the field is developed for production.	The production phase involves operation and maintenance of the field and recovery of oil and gas.	When the field is abandoned, equipment is removed, wells are plugged, and the surface is reclaimed.
Airborne Surveys Surface Surveys Geochemical Surveys Stratigraphic & Other Mapping Geophysical Surveys Explosive Method Thumper Method Vibrator Method Gravity & Other Methods Geologic Surveys	Wildcat Well Drilling Access Roads Camp & Buildings (Remote Areas)	Development Drilling Access Roads Pipelines Utility Lines Separators Storage Tanks Camp & Buildings	Continued Drilling & Development of Field Pressure Maintenance System Disposal of Waste Secondary & Tertiary Recovery System Communication & Production System Communities	Equipment, Buildings & Facilities Removal Field Cleanup Well Abandonment & Plugging Eliminate Hazard Surface Reclamation Landscaping Reseeding Other Erosion Control

Figure K-1
SEQUENCE OF OPERATIONS IN AN OIL AND GAS FIELD

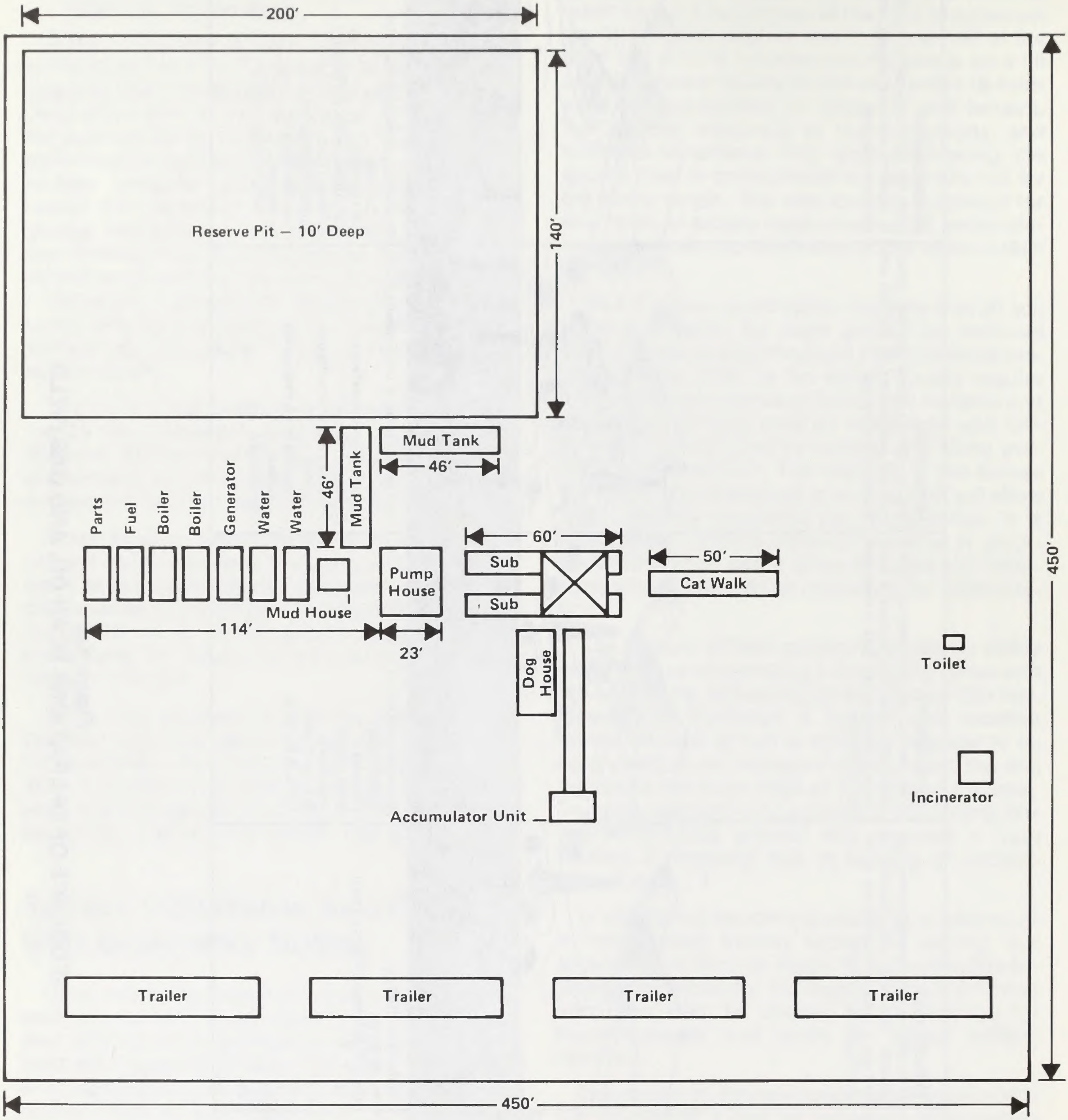


Figure K-2
TYPICAL WELL LOCATION LAYOUT

roads. The derrick when erected is approximately 160 feet high.

Water for drilling is hauled to the rig storage tanks or transported by surface pipeline. Water sources are usually rivers, wells, or reservoirs. Occasionally, water supply wells are drilled on or close to the site. The operator must obtain a permit from the Wyoming State Engineer for the use of surface or subsurface water for drilling. When BLM holds the water permits for surface water (stock ponds), BLM must also approve such use. When drilling commences, and as long as it progresses, water is continually transported to the rig location. Approximately 40,000 barrels or 1,680,000 gallons of water are required to drill an oil or gas well to the depth of 9,000 feet. More water is required if the underground formations are fractured enough to permit water to escape into them (lost circulation zone) (USDI 1981a).

Issuance of Rights-of-Way

Rights-of-way are required for all facilities, tank batteries, pipelines, truck depots, powerlines, and access roads that occupy federally owned land outside the lease or unit boundary. When a third party (someone other than the oil or gas company and the federal government) constructs a facility or installation on or off the lease, a right-of-way is also required.

Drilling Operations

Rotary Drilling

Starting to drill is called "spudding in" the well. Initially drilling usually proceeds rapidly mainly due to the incompetent (or soft) nature of shallow formations. Drilling is accomplished by rotating special bits under pressure. While drilling, the rig derrick and associated hoisting equipment bear a great majority of the drill string's weight (figure K-3). The weight on the bit itself is generally a small fraction of the total drill string weight. The combination of rotary motion and weight on the bit causes rock to be chipped away at the bottom of the hole. The rotary motion is created by a square or hexagonal rod, called a kelly, which fits through a square or hexagonal hole in a large turntable, called a rotary table. The rotary table sits on the drilling rig floor and as the hole advances, the kelly slides down through it. When the kelly has gone as deep as it can, it is raised, and a piece of drill pipe about 30 feet in length is attached in its place. The drill pipe is then lowered, the kelly is attached to the top of it, and drilling recommences. By adding more and more drill pipe, the hole can steadily penetrate deeper (USDI l981a).

Drilling mud is circulated through the drill pipe to the bottom of the hole, through the bit, up the bore of the well, through a screen which separates the rock chips, and into holding tanks from which it is pumped back into the well. The mud is maintained at a specific weight and thickness to cool the bit, reduce the drag of the drill pipe on the sides of the well hole, seal off any porous zones, contain formation fluids to prevent a blowout or loss of drilling fluid, and bring the rock chips to the surface for disposal. Various additives are used in maintaining the drill mud at the appropriate viscosity and weight. Some of the additives are caustic, toxic, or acidic, but these hazardous additives are used in relatively small amounts during drilling operations.

Eventually, the bit becomes worn and must be replaced. To change bits, the entire string of drill pipe must be pulled from the hole, in sections usually about 90 feet long, until the bit is out. The bit is replaced and then the drill string is reassembled and lowered into the hole, section by section, and drilling is started again. The process of removing and reinserting the drilling string uses much of the time required in drilling.

Drilling operations are continuous, 24 hours a day and 7 days a week. The crews usually work three 8-hour shifts or two 12-hour shifts a day. Pickups or cars are used for workers' transportation to and from the sight.

Upon completion of the drilling, the equipment is removed to another location. If oil or gas is not discovered in commercial quantities, the well is considered dry. The operator is then required to follow state and BLM policy procedures for plugging a dry hole. The drill site and access road are rehabilitated in accordance with the stipulations attached to the approval of the well site (USDI 1981a).

Casing

Various types of casing are placed in the drilled hole to enhance hole integrity. Casing is a string of steel pipe which is comprised of many lengths (about 40 feet long) of individual pipe which are "screwed" together. Casing is cemented into the well to protect against fluids or rock entering the well bore.

Surface casing which is properly set and cemented also protects surface aquifers from being contaminated by drilling and production operations. Surface casing should be set to a depth greater than the deepest fresh water aquifer

1. Crown Block and Watertable
2. Mast
3. Monkeyboard
4. Traveling Block
5. Hook
6. Swivel
7. Elevators
8. Kelly
9. Kelly Bushing
10. Master Bushing
11. Mousehole
12. Rathole
13. Backup Tongs
14. Makeup Tongs
15. Drawworks
16. Weight Indicator
17. Driller's Console
18. Doghouse
19. Rotary Hose
20. Accumulator Unit
21. Catwalk
22. Pipe Ramp
23. Pipe Rack
24. Substructure
25. Mud Return Line
26. Shale Shaker
27. Choke Manifold
28. Mud–Gas Separator
29. Degasser
30. Reserve Pit
31. Mud Pits
32. Desilter
33. Desander
34. Mud Pumps
35. Mud Discharge Lines
36. Bulk Mud Components Storage
37. Mud House
38. Water Tank
39. Fuel Storage
40. Engines and Generators
41. Blowout Preventer Stack
42. Drilling Line

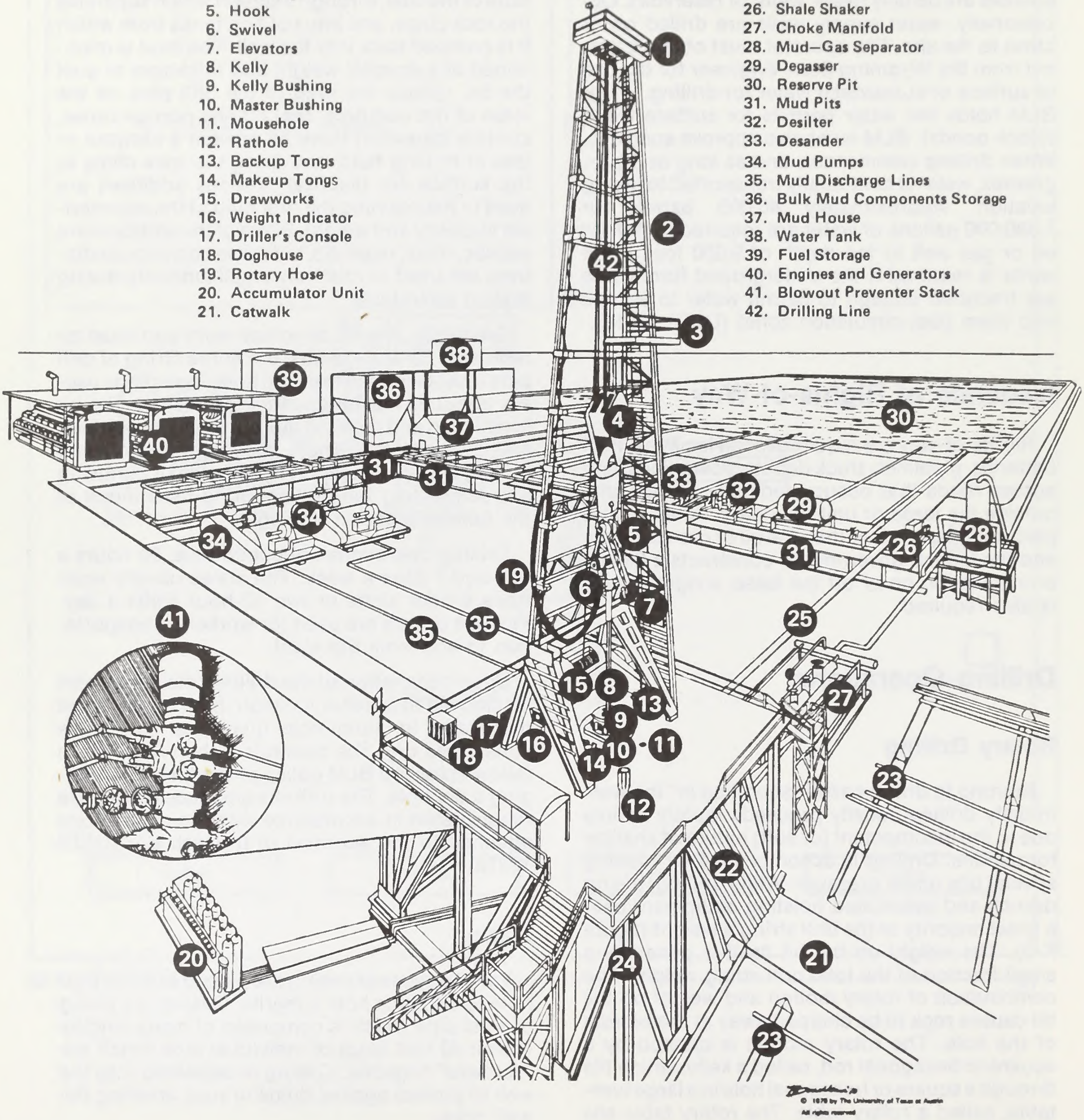


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Figure K-3
THE ROTARY RIG AND ITS COMPONENTS

which could reasonably be developed. Fresh water may exist at greater depths but these aquifers are not normally considered to be important fresh water sources.

Surface casing is large enough to allow subsequent lengths of smaller casing to be set as the well is drilled deeper. Cement is placed in the annulus of the surface casing from casing shoe to ground level. That is, the entire space between the outside of the casing and the borehole wall is filled. Generally only the bottom few hundred feet of intermediate or production casing is cemented which often leaves several thousand feet of open hole behind some casing strings. Casing in open hole (uncemented annulus) is not considered adequate to protect zones of fresh water or minerals from contamination. The annulus must be properly filled with cement to provide adequate protection from inter-zonal migration.

Currently, the operator is only required to cement off "hydrocarbon bearing zones." Generally, operators define hydrocarbon bearing zones to be those zones which produce enough oil or gas to measure, therefore, some hydrocarbon bearing zones are not cemented. Production casing or liner is intended to provide a conduit for the production of oil and gas so that little or no product is lost in "up-hole zones."

Completion of a well calls for the installation of steel casing, which is cemented in, to provide stability and to protect specific underground zones. The casing is perforated into the zone or structure containing the oil or gas. The equipment installed on the casing of a producing well consists of various valves and pressure regulators which are used to control the oil or gas flow to production facilities.

Pipeline quality gas at the wellhead requires a minimum of processing equipment. As the quality of gas decreases with the increased presence of water, dissolved solids, or liquid hydrocarbons, the amount of processing equipment increases. Water or liquid hydrocarbons in the gas are removed before the gas is mixed with other gas, usually at the wellhead. If liquid hydrocarbons are present, storage facilities (tank batteries) large trucks.

Oil wells can be completed as flowing (those wells with sufficient underground pressure to raise the oil to the surface) or if the pressure is inadequate, they are completed with the installation of pumps, usually pumpjacks. Pumpjacks come in a variety of sizes, the larger ones reaching a height of 30 to 40 feet. Pumps are powered by internal combustion engines or electric motors. Fuel for the engines may be casinghead gas or propane.

Wyoming law prohibits the flaring or venting of natural gas. Exceptions allowed by the Wyoming Oil and Gas Commission are: 1) during testing of a new well, or 2) when the amount of gas produced with the oil is so small that pipeline construction is not practical. Otherwise, if a well produces both oil and gas, provisions for shipping the gas must be made before oil production can continue.

The production equipment (heater-treater, holding facility for production water (if any is present), and tank battery) are either placed on a portion of the location (on cut rather than fill) or located a short distance from the wellhead along the access road. Production facilities are usually painted black, silver, or with company colors, unless otherwise specified. The heater-treater and tanks are surrounded by earthen dikes to contain accidental spills. Either all the facilities may be fenced, or only the production water pit may be fenced (USDI 1981a).

Oil and Gas Exploratory Units

Surface use in an oil or gas field may be affected by unitization of the leaseholds. In areas of federally owned minerals, an exploratory unit is formed before a wildcat exploratory well is drilled. The boundary of the unit is based on geologic data. The developers of the unit can enter into an agreement to develop and operate as a unit, without regard to separate lease ownerships. Costs and benefits are allocated according to agreed-upon terms.

Unitization reduces the surface use requirements because all wells are operated as though on a single lease. Duplication of field processing facilities is minimized, because development and operations are planned and conducted by a single operator. Often powerlines are distributed throughout the unit and diesel engines are converted to electric motors. Unitization may also involve wider spacing than usual, resulting in fewer wells. Access roads are usually shorter and better organized (USDI 1981a).

Enhanced Recovery Projects in the Cody Resource Area

An oil reservoir typically contains oil, gas, and water trapped within fine rock pores under tremendous pressures. Because of the pressure, much or all of the gas is dissolved in the oil. "Primary drive" is by the expansion of pressurized water and gas in solution which forces oil out of the pores into the well and up to the surface. Oil flowing out of the rock drains energy from the formation; pressure in the reservoir begins to slowly decline; primary drive diminishes and the production rate falls. As reservoir pressures continue to drop, gas in the oil escapes, forming bubbles ceases. At this point, as much as 80% of the original oil may still remain in the reservoir.

To keep oil flowing, pressure is required. Pumps may lift oil to the surface, but only pressure within the reservoir can force oil into the bottom of the well bore. To accomplish this, gas may be injected; but the most popular "secondary recovery" technique is waterflooding. Water is injected into the producing formation to replace the volume of oil extracted and provides a driving force as well as maintains reservoir pressure. In reservoirs that are receptive to it, waterflooding may push out an additional 30% of the original oil in place. Water, which does not mix with oil, generally leaves about half the original oil behind in the form of small droplets trapped by capillary forces in the rock pores. Releasing oil that water alone will not move requires either chemicals, solvents, or heat. But, water flooding is not a last ditch remedy applied only to dying reservoirs. Water injection wells may be drilled in newly discovered fields, along with development wells to maintain pressure as early as possible and lengthen the life of the reservoir.

Carbon dioxide (CO_2) is also injected into oil reservoirs, sometimes after waterflooding, to recover more oil. Ideally, for most efficient displacement, CO_2 should mix with the oil; but, it does this only gradually, if at all. Moving through the reservoir, CO_2 will extract some of the lighter hydrocarbons from the oil; and as it becomes enriched with these, it achieves a composition which allows it to mix with the oil. From this point on, a "miscible flood" is achieved which should displace virtually all of the oil from the rock matrix.

Among thermal processes, steam accounts for the bulk of recovered oil. Steam recovers 77% of all oil produced by enhanced recovery methods. Unlike chemicals, which alter the relationship of oil to the flooding medium and to the reservoir rock, steam helps heavy oil to flow by reducing its viscosity, and by thermal expansion within the reservoir. Steam distillation also assists in moving oil, particularly lighter oils.

The fields undergoing waterflooding in the planning area are North Danker, Frannie, Oregon Basin, Byron, and Shoshone. No fields are currently undergoing CO_2 injection. If the proposed Amoco CO_2 pipeline is built as an extension of the Bairoil pipeline from approximately Powder River, Wyoming in Natrona County to Elk Basin, then this secondary recovery method will become more common, especially in Elk Basin. There are currently two steam injection wells operating in the Garland field. The polymer flood recovery method has occurred in the Oregon Basin, Byron, and Garland fields, but was discontinued because the polymer was too corrosive on the casing and tubing in the wells.

As additional oil reserves become more difficult to locate in the future, the increased use of enhanced recovery techniques in the planning area is inevitable. Every oil reservoir would eventually be considered a candidate for secondary or tertiary recovery.

Plugging and Abandonment of Wells

The purpose of plugging and abandoning (P&A) a well is to prevent fluid migration between zones, to protect minerals from damage, and to restore the surface area. Each well has to be handled individually due to a combination of factors, including geology, well design limitations, and specific reclamacation concerns. Therefore, only minimum requirements can be established, then modified for the individual well.

The first step in the P&A process is the filing of the Notice of Intent to Abandon (NIA). This will be reviewed by both the Surface Management Agency (SMA) and the BLM District Office. The NIA must be filed and approved prior to plugging a past producer. Verbal plugging instructions can be given for plugging current drilling operations, but a NIA must be filed after the work is completed. If usable fresh water was encountered while the well was being drilled, the SMA will be allowed, if interested, to assume future responsibility for the well and the operator will be reimbursed for the attendant costs.

The operator's plan for securing the hole is reviewed. The minimum requirements are as follows: In open hole situations, cement plugs must extend at least 50 feet above and below zones with fluid which has the potential to migrate, zones of lost circulation (this type of zone may require an alternate method to isolate), and zones of potentially valuable minerals. Thick zones may be isolated using 100-foot plugs across the top and bottom of the zone. In the absence of productive zones and minerals, long sections of open hole may be plugged with 100-foot plugs placed every 2,500 feet. In cased holes, cement plugs must be placed opposite perforations and extending 50 feet above and below except where limited by plug back depth. Any annular space that extends to the surface shall be plugged with a minimum of 100-feet of cement to the surface. A cement plug of at least 50 feet, but not less than 25 sacks of cement, shall be placed in the smallest casing extending to the surface. Any plugs with questionable integrity (stability) shall be tagged (tested). Each of the intervals between the plugs shall be filled with mud of sufficient density to balance the plugs and ensure continued integrity of the well bore.

A permanent abandonment marker is required on all wells unless otherwise requested by the SMA. This marker pipe is usually at least 4 inches in diameter, 10 feet long, 4 feet above the ground, and embedded in cement. The pipe must be capped with the well identity and location permanently inscribed.

The SMA is responsible for establishing and approving methods for surface rehabilitation and determining when this rehabilitation has been satisfactorily accomplished. At this point, a Subsequent Report of Abandonment can be approved.

SUBSURFACE PRACTICES

The success (or failure) of subsurface operations cannot be determined by simply "looking down the hole," but instead, must be judged from indirect evidence such as downhole logs, drilling data, completion data, and many other data sets. Competent professionals are required to determine the character and adequacy of "downhole" operations. A downhole failure may take many years before the ramifications become apparent at the surface; by that time, the situation may be irreversible.

Prior to 1982, the USGS was responsible for subsurface management and initiated many standards and policies for oil and gas development on federal mineral lands. Since 1982, the fluid minerals branch of the BLM has been responsible for subsurface management.

Casing and Cementing

Early wells had just enough casing to support a wellhead and the remainder of the hole was generally open. Improper casing and cementing allows communication between zones of hydrocarbons, salt water, and fresh water.

Most standards are difficult to set in that cost is a factor and any job can be "overdesigned." Many "gray areas" exist where experts argue the merits of one design over another. One of these controversial design areas is hole size relative to casing size. It is questionable if a proper cement bond can be obtained under these circumstances. Hole deviation, depth, bore hole environment, placement of centralizers (if any), and a myriad of other factors affect the integrity of the casing and cement job. One of the most important factors influencing a "cement job" is the pumping method. Cement can be pumped and placed in any of three flow regimes: plug flow, laminar flow, and turbulent flow. The flow regime is a function of the velocity at which the slurry flows. Plug flow has a very slow velocity and takes the most time to pump. Turbulent flow requires high hydraulic horsepower and some service companies cannot pump cement in turbulent flow under certain conditions.

Blowout Prevention

In the early days of drilling, no blowout prevention equipment was used. Today special attention is paid to blowout prevention and much of the equipment associated with drilling rigs is for handling excess pressure at the surface. Blowout prevention equipment is tested and inspected regularly by both the rig personnel and the inspection and enforcement branch of the BLM. Reasonably good standards are currently in effect and operators are willing to follow them due to the dangerous nature of an uncontrolled flow from the well. The BLM is currently attempting to upgrade standards for blowout preventer stack tests to require full working pressure tests instead of the lower pressures currently specific in CDM 643.8.3C-8. Well trained rig site personnel are a necessity for proper blowout prevention.

Casing setting depth is also important with regards to blowout prevention. The casing shoe must be set in rock which is competent to withstand the maximum anticipated pressure to which it will be exposed.

There has never been an uncontrolled blowout in the Cody planning area. Blowouts are often caused by extremely high pressures usually associated with gas. In general, most areas in the Bighorn Basin are underpressured and there is relatively much more oil than gas production. Although the chance exists for a blowout in the planning area, there is a smaller probability than for other areas in the state.

GLOSSARY

GLOSSARY SUPPLEMENT

ADVISORY COUNCIL. An advisory council is a citizens' advisory group formed to advise the district manager on public land mangement issues. Each of the ten appointed members represents a specific area of interest and constituency related to the use and mangement of the public lands, and each is appointed by the Secretary of the Interior for a three-year term. Advisory councils are formed under several authorities, including the Federal Land Policy and Management Act of 1976.

COMMUNICATION SITE WINDOW. Designated area preferred as the location for future communication facilities. Designation usually follows history of past use.

FORAGE CONDITION. A subjective evaluation of the forage plants in a community based on relative considerations such as palatability, length of palatable periods, accessibility, nutritive value, and productivity of desirable species in relation to potential.

SURFACE-DISTURBING ACTIVITY. Any human-caused act that results in the destruction or removal of the existing vegetation or soil. Some surface-disturbing activities are road construction, ORV use, fence building, and mineral production.

REFERENCES

ADDITIONAL, CORRECTED, AND RENUMBERED REFERENCES

[Note: Most of the literature cited in this proposed RMP/final EIS is listed in the References section of the *Draft Resource Management Plan/Environmental Impact Statement for the Cody Resource Area*. This list contains additional literature not cited in that draft document that was used in research for this document or cited in this document. In addition, a few references have been updated or are repeated because mistakes have been corrected. An asterisk before a reference indicates that the bibliographical information is unchanged from the draft RMP/EIS, but the date/letter designation has been changed to accommodate alphabetical placement of a new citation of a work by the same author in the same year.]

Cameron, E.S.

1907 "The Birds of Custer and Dawson Counties, Montana." *Auk* 24:241-270. Cited in Allen, Julia N. *The Ecology and Behavior of the Long-billed Curlew in Southeastern Washington*. Wildlife Society Monograph no. 73. Louisville, KY, 1980.

Eng, Robert

1986 Personal communication on October 27, 1986, with Eric Greenquist of the Cody Resource Area, Bureau of Land Management, regarding long-billed curlews in Montana. Eng is a professor of wildlife biology at Montana State University, Bozeman.

Hartman, Ronald L., and Kirkpatrick, Robert S.

1986 "A New Species of *Cymopterus (umbelliferae)* from Northwestern Wyoming." *Brittonia* 38, no. 4: 420-426.

Pampush, G. J.

1979 "Breeding Ecology of the Long-billed Curlew (*Numenius americanus*) in North Central Oregon." Report prepared for Fish and Wildlife Service, U.S. Department of the Interior, Corvallis, OR. Cited in Howe, Marshall A. "Long-billed Curlew (*Numenius americanus*)." In *Impacts of Coal Surface Mining on 25 Migratory Bird Species of High Federal Interest,* pp. 185-196. Edited by Judith Scherpelz Armbruster. Fort Collins, CO: Fish and Wildlife Service, U.S. Department of the Interior, 1983.

Thilenius, John F.

1975 *Alpine Range Management in the Western United States—Principles, Practices, and Problems: The Status of Our Knowledge.* Research Paper RM-157. Fort Collins, CO: Rocky Mountain Forest and Range Experiment Station, Forest Service, U.S. Department of Agriculture.

Thilenius, John F., and Smith, Dixie R.

1985 *Vegetation and Soils of an Alpine Range in the Absaroka Mountains, Wyoming.* General Technical Report RM-121. Fort Collins, CO: Rocky Mountain Forest and Range Experiment Station, Forest Service, U.S. Department of Agriculture.

Timken, R. L.

1969 "Notes on the long-billed curlew." *Auk* 86:750-751. Cited in Howe, Marshall A. "Long-billed Curlew (*Numenius americanus*)." In *Impacts of Coal Surface Mining on 25 Migratory Bird Species of High Federal Interest,* pp. 185-196. Edited by Judith Scherpelz Armbruster. Fort Collins, CO: Fish and Wildlife Service, U.S. Department of the Interior, 1983.

United States. Department of the Interior. Bureau of Land Management

1982 *Grass Creek Grazing Environmental Impact Statement: Draft.* Worland, WY.

1983a *Billings Resource Area Resource Management Plan Draft Environmental Impact Statement.* Billings, MT.

*1983b *Interim Management Policy and Guidelines for Lands Under Wilderness Review.* Revisions to 1979 document (listed in draft Cody RMP/EIS). [Washington]. *(was 1983, no letter following)

1986c *Draft Resource Management Plan/Environmental Impact Statement: Pinedale Resource Area.* [Rock Springs, WY.]

*1986d *Prairie Dog Ecosystem Habitat Management Plan.* Document WY-010-WHA-T14. Worland, WY. *(was 1986c)

References

United States. Department of the Interior. Bureau of Land Management

1987d *Final Proposed Resource Management Plan Environmental Impact Statement for the Pinedale Resource Area.* [Rock Springs, WY.]

United States. Department of the Interior. National Park Service, and Crow Tribe

n.d. *Bighorn Cavern Management Plan.* Fort Smith, MT: Bighorn Canyon National Recreation Area, National Park Service, U.S. Department of the Interior.

Wyoming. Game and Fish Department

1984 *Annual Big Game Herd Unit Reports: 1984: District II,* by Jim Yorgason, Vern Stelter, and Cal King. [Cheyenne, WY.]

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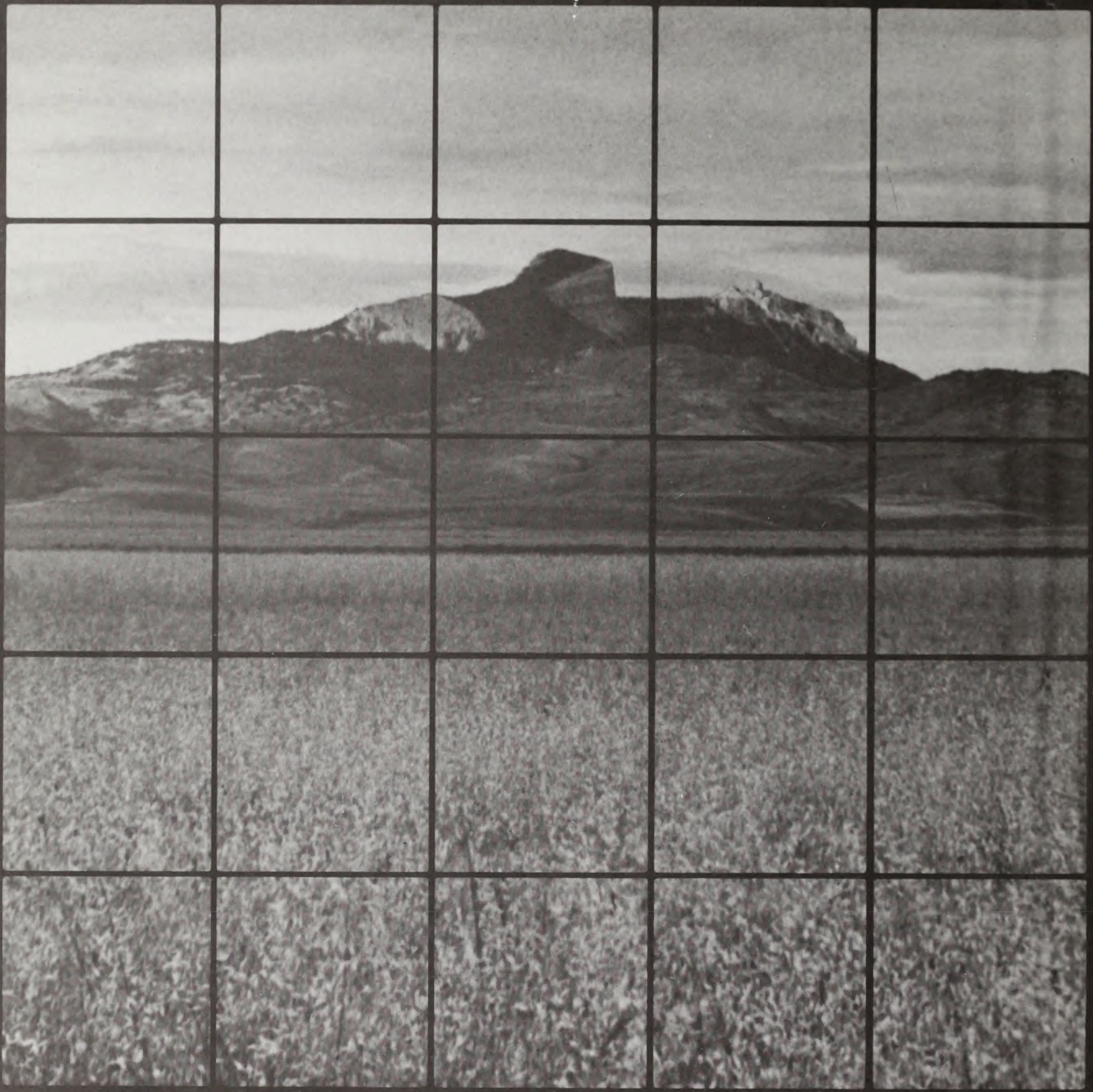

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